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डा. सुधा गौतम
मन्त्री
स्वास्थ्य तथा जनसङ्ख्या मन्त्रालय
रामशापथ, काठमाडौं, नेपाल

Dr. Sudha Gautam
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पत्र संख्या: Let. No.: ०८२/८३
चलानी नम्बर: Ref No.: १६४

शुभकामना

शहीद गंगालाल राष्ट्रिय हृदय केन्द्रले आफ्नो स्थापनाको ३० औं वार्षिकोत्सवको अवसरमा विभिन्न कृयाकलापहरू समावेश गरी स्मारिका प्रकाशन गर्न लागेको थाहा पाउँदा खुशी लागेको छ। यसमा प्रकाशित जानकारीमूलक तथ्यांकहरू, प्रतिवेदन एवम् लेख रचनाहरूले जनमानसमा केन्द्रले सम्पादन गरेका सेवा सुविधाहरु एवम् उपचारात्मक गतिविधिहरुको बारेमा जानकारी प्रदान गर्ने छ भन्ने विश्वास लिएको छु।

नेपालको संविधानले प्रत्येक नागरिकलाई राज्यबाट आधारभूत स्वास्थ्य सेवा निःशुल्क प्राप्त हुने र कसैलाई पनि आकस्मिक स्वास्थ्य सेवाबाट बञ्चित गरिने छैन भनि मौलिक हक अन्तर्गत व्यवस्था गरेको छ। साथै आम्दो स्वास्थ्य उपचारको सम्बन्धमा जानकारी पाउने तथा स्वास्थ्य सेवामा समान पहुँचको हक हुने कुराको प्रत्याभूति गरेको सन्दर्भमा उपलब्ध स्रोत र साधनको दिगो एवम् विवेकपूर्ण परिचालन गरी सबै नागरिकलाई आधारभूत स्वास्थ्य सेवाको सुनिश्चितता गर्नु हाम्रो पहिलो कर्तव्य हुन आउँछ।

छासगरी देशमा बढ्दो मुटुरोगीको उपचार, निदान, रोकथाम तथा अध्ययन अनुसन्धानको अभिभारका साथ गुणस्तरीय सेवा प्रदान गर्ने उद्देश्यले स्थापित यस केन्द्रले मुटुरोगको उपचारको क्षेत्रमा एउटा छुट्टै पहिचानसहित पुऱ्याएको योगदान अनुकरणीय छ।

अन्त्यमा, आगामी दिनमा समेत अत्याधुनिक एवम् प्रविधिमैत्री उपचारपद्धति अवलम्बन गर्दै मुटुरोगको उपचारमा थप गुणस्तरीय सेवा प्रदान गर्ने कार्यमा केन्द्रलाई सफलता मिलोस् भन्दै केन्द्रको ३० औं वार्षिकोत्सव समारोहको पूर्ण सफलताको लागि शुभकामना व्यक्त गर्दछु।

२०८२ माघ

डा. सुधा गौतम शर्मा
मन्त्री

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नेपाल सरकार

स्वास्थ्य तथा जनसंख्या मन्त्रालय

(.....शाखा)

फोन नं. ४२६२७८०
४२६२८०२
४२६२००६
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प्राप्त पत्र संख्या :-
पत्र संख्या :-
चलानी नं. :-

सिंहदरबार,
काठमाडौं, नेपाल ।

मिति : .....

विषय :- शुभ कामना

शहीद गंगालाल राष्ट्रिय हृदय केन्द्रले स्थापनाको ३०औं वार्षिकोत्सव मनाउने सन्दर्भमा केन्द्रले गरेका वार्षिक कृयाकलापहरु समावेश गरी स्मारिका प्रकाशन गर्न लागेकोमा खुशी लागेको छ। सर्वप्रथम स्मारिका प्रकाशनको पूर्ण सफलताको कामना व्यक्त गर्दछु।

स्वास्थ्य क्षेत्रमा प्रणालीगत सुधार र कुशल कार्यशैलीका माध्यमबाट सर्वसाधारण नागरिकलाई गुणस्तरीय स्वास्थ्य सेवाको सुनिश्चतता गर्न आवश्यक छ। केन्द्रले विविध चुनौती र अप्ठ्याराहरुलाई चिर्दै आफूलाई एक अब्वल एवं विशिष्टकृत अस्पतालको रुपमा विकास गरी मुटुरोगको उपचारमा तुलनात्मक रुपले सस्तो र गुणस्तरीय सेवा प्रदान गरिरहेको छ। यस केन्द्र देशकै एक भरोसायोग्य उपचार केन्द्रको रुपमा स्थापित हुन सक्नु हामी सबैका लागि गौरवको विषय हो।

यस राष्ट्रिय हृदय केन्द्रलाई स्तरोन्नती गर्न स्वास्थ्य तथा जनसंख्या मन्त्रालयको साथ र सहयोग रहने जानकारी गराउँदै केन्द्रको सेवा प्रवाह, यसको विकास एवम विस्तारमा लाग्नुहुने सबै चिकित्सक, नर्स, स्वास्थ्यकर्मीहरु, कर्मचारीहरु लगायत सम्पूर्ण सरोकारवालाहरुलाई हार्दिक धन्यवाद दिन चाहन्छु। स्मारिका प्रकाशनमा खटिनुहुने सबै प्रति आभार सहित अस्पतालको ३०औं वार्षिकोत्सव कार्यक्रमको सफलताको साथै आगामी दिनमा केन्द्रलाई समयानुकुल थप चुस्त दुरुस्त बनाई मुटुरोगको उपचारमा संस्थागत क्षमता विकास गर्दै एक उत्कृष्ट नमुना अस्पतालको रुपमा आफूलाई कायम राखिराख्न सकोस भन्ने शुभकामना व्यक्त गर्दछु।

डा. विकास देवकोटा
सचिव

माघ, २०८१

नेपाल सरकार

स्वास्थ्य तथा जनसंख्या मन्त्रालय

(.....शाखा)

फोन नं

प्राप्त पत्र संख्या :-

पत्र संख्या :-

चलानी नं. :-

सिंहदरबार,

काठमाडौं, नेपाल ।

विषय :- शुभकामना

शहिद गंगालाल राष्ट्रिय हृदय केन्द्रले स्थापनाको ३० औं वार्षिकोत्सव मनाउने सन्दर्भमा केन्द्रका वार्षिक क्रियाकलापहरु समावेश गरी स्मारिका प्रकाशन गर्न लागेकोमा खुसी लागेको छ।

स्वास्थ्य क्षेत्रमा प्रणालीगत सुधार र कुशल कार्यशैलीका माध्यमबाट नागरिकलाई गुणस्तरीय स्वास्थ्य सेवाको सुनिश्चितता गर्न आवश्यक छ। हरेक संस्थाले आफ्नो आन्तरिक प्रक्रिया, जनशक्ति व्यवस्थापन, वित्तीय व्यवस्थापन र प्रणालीगत पक्षमा सुधार गर्दै अगाडि बढ्नुपर्ने हुन्छ। सो कुरालाई मध्यनजर गर्दै त्यस केन्द्रले विविध चुनौती र अप्ठ्यारोहरुलाई चिर्दै आफूलाई एक अग्रस्त अत्याधुनिक अस्पतालको रुपमा विकास गरी मुटुरोगको उपचारमा तुलनात्मक रुपले सस्तो र गुणस्तरीय सेवा प्रदान गरी देशकै एक भरोसायोग्य उपचार केन्द्रको रुपमा स्थापित हुन सक्नु हामी सबैका लागी गौरवको विषय हो।

यसका लागि केन्द्र, कार्यकारी निर्देशक, आबद्ध कर्मचारी एवंम् सेवाग्राहीहरुमा हार्दिक बधाई तथा धन्यवाद व्यक्त गर्न चाहान्छु। आगामी दिनमा समेत केन्द्रलाई समयानुकुल थप चुस्त दुरुस्त बनाई मुटु रोगको उपचारमा संस्थागत क्षमता विकास गरी एक उत्कृष्ट नमुना अस्पतालको रुपमा आफुलाई स्थापित गर्न सकोस् भन्ने अपेक्षा गर्दछु।

२०८२ माघ

डिल्ली राम शर्मा
सचिव

डिल्ली राम शर्मा
सचिव

EDITORIAL

Thirty years ago, a vision was born—a vision to provide world-class cardiac care to the people of Nepal that is accessible, compassionate, and rooted in excellence. Today, as we celebrate 30 years of the establishment of Shahid Gangalal National Heart Center, that vision stands stronger than ever, reflected in the lives saved, the families comforted, and the trust earned across the nation and beyond.

Our hospital is more than an institution; it is a name spoken with confidence and hope by Nepali citizens from the most remote villages to the heart of our cities. Internationally recognized for its standards of care and the volume and complexity of services provided, Gangalal has become a symbol of national pride in cardiac healthcare. These three decades represent a journey shaped by dedication, resilience, and an unwavering commitment to patients.

This remarkable journey has been made possible by the collective efforts of our medical professionals, nurses, non-medical staff, medical technicians, paramedics, national and international donors, and the steadfast support of central and local governmental agencies. Visionary leadership across the years has guided the institution through growth and transformation. We extend our sincere gratitude to every individual who has contributed to this enduring legacy.

Currently operating as a tertiary care center with 306 beds, and with plans to expand to 400 beds, Gangalal performs the highest number of diagnostic and therapeutic cardiac procedures in the country—figures that rank among the largest globally. Yet, progress for us is not measured by numbers alone, but by how thoughtfully and responsibly we respond to the evolving needs of our patients.

This year, our commitment to holistic and patient-centered care took meaningful new forms. The establishment of a Child day care Centre and dedicated Breastfeeding Rooms reaffirmed our respect for dignity, motherhood, and family-centered care. Recognizing that healing extends beyond the physical heart, we also introduced mental health counselling services to support patients through the emotional and psychological challenges of cardiac illness.

In Interventional Cardiology, we reached new heights with the introduction of advanced technologies such as Intravascular Ultrasound (IVUS), Optical Coherence Tomography (OCT), and Intravascular Lithotripsy (IVL). We are also planning to add our fifth catheterization laboratory, further strengthening our capacity to deliver precise, evidence-based, and cutting-edge cardiac interventions.

Clinical services introduced in the previous year—including the Critical Care Department and the Paediatric Cardiac Surgery Unit—are now firmly integrated into our system, enhancing care for critically ill patients and children with heart diseases. These services are supported by strong departments including Adult Cardiology, Preventive Cardiology and Rehabilitation, Paediatric Cardiology, Adult Cardiac Surgery, Radiology, Anaesthesiology and Pathology, working in harmony with one of the most skilled and dedicated nursing and technical teams in the country.

As a center of learning, Gangalal continues to build on the academic foundations laid last year. The Academic Committee has strengthened collaboration with training institutions, and in coordination with the Medical Education Commission, we are preparing to launch our own academic programs. Our Institutional Review Committee continues to promote ethical, impactful research.

Looking beyond our walls, we reaffirm our commitment to equitable healthcare by pledging to extend cardiology services to government hospitals across all provinces.

As we celebrate 30 years of Shahid Gangalal National Heart Center we do so with humility, gratitude, and renewed determination—committed to advancing care, touching lives, and making Nepal proud on the global stage.

ANNUAL REPORT 2025

TABLE OF CONTENT

कार्यकारी निर्देशकको वार्षिक प्रतिवेदन

प्रा डा. रवि मल्ल
कार्यकारी निर्देशक

मुटुरोगको रोकथाम, निदान, उपचार तथा हृदयरोगीहरुको पुर्नस्थापनाको लागि आवश्यक उच्चस्तरीय स्वास्थ्य सेवा सर्वशुलभरुपमा स्वदेशमा नै प्रदान गरी हृदयरोगीहरुलाई मानवोचित जीवनयापन गर्न सक्षम तुल्याउन तथा हृदयरोगसम्बन्धी उच्चस्तरीय अध्ययन र अनुसन्धानका लागि आवश्यक दक्ष जनशक्ति तयार गर्ने मुल उद्देश्य लिई वि. सं. २०५२ सालमा यस केन्द्रको स्थापना भएको हो । वि. सं. २०५६ सालमा ९ शैयाबाट आफ्नो सेवा सुरु गरेको यस केन्द्रमा हाल ३०५ शैचया संचालनमा रहेको छ । आगामी दिनमा ४०० शैया संचालनको लागि केन्द्र संचालक समितिबाट निर्णय भई सोको कार्य अगाडी बढाइएको छ । प्रारम्भमा मुटुरोगसम्बन्धी सामान्य उपचारबाट सेवा शुरु गरेको यस अस्पतालले समयको अन्तरालसँगै मुटुरोगसम्बन्धी विभिन्न किसिमका विश्वस्तरीय विशेषज्ञ उपचार सेवाहरु सर्वशुलभरुपमा उपलब्ध गराउँदै आइरहेको छ । सिमित श्रोत र साधनबाट शुरु भएको यस केन्द्र हाल आधुनिक प्रविधि, दक्ष जनशक्ति तथा विश्वस्तरीय अत्याधुनिक उपकरणले Super Specialty Cardiac Center रुपमा आफूलाई स्थापित गर्न सफल भएको छ । सन् २०२५मा केन्द्रले सम्पादन गरेका मुख्य सेवाहरुको संक्षिप्त विवरण यसप्रकार छन् :

सन् २०२५ मा केन्द्रबाट प्रदान गरिएका मुख्य सेवाहरुको विवरण		
क्र.सं.	सेवाहरु	जम्मा विरामी संख्या
१	बहिरंग (OPD) सेवा	१,९७,८४२ जना
२	अन्तरंग (In-patient) सेवा	१४,९४४ जना
३	आकस्मिक (Emergency) सेवा	२४,२२७ जना
४	शल्यक्रिया (Surgery) सेवा	१,९९० जना
६	Electrocardiogram (ECG)	८४,२७९ वटा
७	Echocardiogram (Echo)	६७,४९० वटा
८	Tread Mill Test (TMT)	७,८०८ वटा
९	X-ray	६४,३७८ वटा
१०	Fetal Echo	१,५७६ वटा
११	Carotid Doppler	६४४ वटा
१२	CT Scan	६,५२६ वटा
१३	USG	३,२५० वटा
१४	Coronary Angiogram (CAG)	५,५९१ वटा
१५	Coronary Angioplasty (PTCA)	२,५३० वटा
१६	IVUS	२१ वटा
१७	PTMC	२५३ वटा

१८	EPS/RFA	४२६ वटा
१९	EPS with RFA (3D mapping)	२५ वटा
२०	ASD Device Closure	३२८ वटा
२१	PDA Device Closure	१०६ वटा
२२	VSD Device Closure	१४ वटा
२३	Pacemaker	६३५ वटा
२४	Primary Angioplasty	६३६ वटा
२५	Cardiac MRI	१,०९६ वटा
२६	Transcatheter aortic valve implantation (TAVI)	७ वटा

विगत केही वर्षहरुदेखि नेपाल सरकारले पनि मुटुरोगको उपचारमा उत्तिकै महत्व दिँदै आइरहेकोछ । आ.व. २०६३/६४ बाट शुरु भएको १५ वर्षमूनिका बालबालिकाको उपचार, आ.व.२०६४/०६५ देखि ७५ वर्षभन्दा माथिका जेष्ठ नागरिकहरुको उपचार, आ.व. २०६६/०६७ देखि विना अप्रेशन मुटुको साँघुरिएको भल्भ खोल्ने प्रविधि **(PTMC),** बाथ मुटुरोगीहरुको शल्यक्रिया, गरीव विरामी राहत सुविधा, आ.व. २०७६/७७ बाट शुरु भएको स्वास्थ्य विमा कार्यक्रम , आ.व. २०८१/८२ बाट शुरु भएको सामाजिक सुरक्षा कोष कार्यक्रम यस केन्द्रबाट संचालन हुदै आइरहेका छन् । मुटु रोगिहरुको उपचारलाई थपसहयोग पुगोस भन्ने उद्देश्यले बाग्मती प्रदेश र बिभिन्न पालिका (गोकर्णेश्वर, टोखा, तारकेश्वर नगरपालिका)संग सम्झौता गरि थप सुविधा उपलब्ध गराइएको छ ।

मुटुरोग उपचार महंगो हुनुकासाथै जटिल छ । मुटुरोगको उपचार, रोकथाम तथा अध्ययन अनुसन्धानमा यस केन्द्रले उल्लेखनीय भूमिका खेल्दै आएको छ । सन् २०२४ मा अनुसन्धान क्षेत्रमा २४ वटा Research Proposal स्वीकृत भएका छन् । केन्द्रले गत आ.व.मा देशका विभिन्न जिल्लाहरुमा मुटुरोगको निःशुल्क स्वास्थ्य शिविरहरु संचालन गरी ७,७२१ विरामीहरुको मुटु परीक्षण गरेको छ । यस केन्द्रले मुटुरोगको रोकथाम र यससम्बन्धी जनचेतना अभिवृद्धि गर्ने कार्यमा पनि निरन्तर लागि परेको छ । सम्भावित मृत्यु न्यूनीकरण गर्न Basic Life Support (BLS) को महत्वपूर्ण भूमिका रहने भएकाले यस केन्द्रले यो तालिम कार्यक्रमलाई निरन्तर रूपमा सञ्चालन गर्दै आएको छ। आपतकालीन अवस्थाका प्रथम प्रत्युत्तरकर्ता (First Responders) का रूपमा कार्यरत जिल्लाका स्वास्थ्य केन्द्रहरूमा सेवा प्रदान गर्ने चिकित्सक, नर्स, हेल्थ असिस्टेन्ट तथा अहेबलाई लक्षित गरी यो कार्यक्रम सञ्चालन गरिएको हो। देशभर BLS तालिम विस्तार गर्ने उद्देश्यअनुरूप चालु आर्थिक वर्षमा म्याग्दी जिल्लामा १५२ जना र सिराहा जिल लामा १०९ जना स्वास्थ्यकर्मी तथा अन्य सरोकारवालालाई निःशुल्क Basic Life Support (BLS) तालिम प्रदान गरिएको छ। यस कार्यक्रममार्फत आपतकालीन अवस्थाहरूमा तत्काल जीवनरक्षक सेवा प्रदान गर्ने क्षमतामा उल्ले खनीय वृद्धि हुने छ। Nick Simons Institute को सहकार्यमा ४० जिल्लामा र बाग्मती प्रदेशका १३ जिल्लामा कार्यरत MDGP, Medical Officer तथा नर्सिङ्ग कर्मचारी लाई यस केन्द्रमा १५ दिने Cardiac Emergency तालिम संचालन गरिएको छ ।

केन्द्रले आफ्नो पहलमा Corporate Social Responsibility (CSR) अन्तर्गत विभिन्न दाताहरु मार्फत निर्मित ३ तले भवनमा Day Care संचालनमा ल्याइएको छ । मृगेन्द्र सम्झना कुरुवा घरमा ICU/CCU का दैनिक ८० बिर ामी कुरुवालाई बस्ने व्यवस्था गरिएको छ । वि.स. २०८१ वैशाखबाट राष्ट्रिय आविष्कार केन्द्रसंग वार्षिक सम्झौ ता गरि हालसम्म १००० भन्दा बढी मेसिनहरु मर्मत भई संचालनमा आएका छन् । केन्द्रको इतिहासमा पहिलो पटक यस परिसरमा रहेका पुराना भई काममा आउन नसक्ने टुटफुट भइ बेकम्मा भएका र पुनः मर्मत नहुने मालसामानहरुको लिलाम बिक्रि गरिएको छ । दैनिक २०० जना (बिहान १०० बेलुका १०० जना) बिरामी तथा १ जना बिरामी कुरुवालाई सहयोगी दातामार्फत निःशुल्क भोजन वितरण गरिएको छ ।शिशु स्याहार कक्ष संचालन(मा ल्याइएको छ । स्तनपान कक्ष संचालन गरिएको छ । जेष्ठ नागरिक सहायता कक्ष संचालनमा ल्याइएको छ। काठमाडौमहानगरपालिकाको सहयोगमा केन्द्र हात भित्रको सडक पिच गरिएको छ । थप २५ वटा ४ पाङ्ग्रे सवारी साधन अट्ने पार्किंग विस्तार गरिएको छ । केन्द्रको मुख्य द्वारमा महिला तथा पुरुषको लागि छुट्टाछुट्टै सार्वजनिक सौ

चालयको निर्माण सम्पन्न गरिएको छ । केन्द्रको मुख्य द्वारमा Digital Display मार्फत सूचना प्रवाह (Digital citizen charter) हुने व्यवस्था मिलाईएको छ ।

अस्पतालको भिड व्यवस्थापनको लागि OPD टिकट काउन्टर ४ वटा संचालनमा ल्याइएको छ । कार्डियोलोजी विभागको २ वटा यूनिटको OPD एकै ठाउँमा हुँदा बिरामी र बिरामीको Visitors ले भिड बढेकोमा अलग अलग तलामा OPD संचालनमा ल्याइएको छ । स्वास्थ्य बिमा र Billing काउन्टरको Waiting area एकै ठाउँमा हुँदा भिड बढेकोमा छुट्टाछुट्टै व्यवस्था गरिएको छ । OPD मा आउने बिरामीहरुको **ECHO** बाहेक अन्य रिपोर्टको हकमा सोहीदिन रिपोर्ट हेर्ने व्यवस्था मिलाइएको छ। जसबाट ५०% बिरामीको भिड कम भएको छ र कुनै पनि बिरामीले OPD टिकट नपाई फर्किनु परेको छैन । प्याथोलोजी ल्याबको Sample Collection OPD Building मै संचालनमा ल्याई OPD मा आउने बिरामीहरुको ल्याब sample collection १५ मिनेट भित्र हुने व्यवस्था मिलाइएको छ । Online बाट OPD टिकट काट्न सकिने गरि online बाट नै ल्याब रिपोर्ट बिरामी तथा डाक्टरले हेर्ने व्यवस्था गरिएको छ । OPD पहिलो तलामा ढलान गरि OPD sample collection, patient waiting area र USG room निर्माण गरिएको छ । हाल २ वटा अप्रेशन थिएटरमा दैनिक ७ वटा अप्रेशन हुने गरेको छ । अप्रेशन थियटर निर्माण सम्पन्न हुने चरणमा रहेको हुँदा ५ वटा अप्रेशन थियटर संचालन हुनेछ । BPKIHS धरानमा यस केन्द्रले कार्डियाक सर्जरी सेवा उपलब्ध गराउने गरि सम्झौता भएको छ साथै ७ प्रदेशमा कार्डियोलोजी सेवा विस्तारको लागि यस केन्द्रले प्राविधिक सहयोग उपलब्ध गराउने छ । कर्पोरेट कार्डियाक प्याकेज संचालनमा ल्याइएको छ । केन्द्रमा Academic committee गठन भई अध्ययन तथा तालिमको व्यवस्थापन गरिएको छ । बिपन्न र स्वास्थ्य बिमाको रकम भुक्तानी नभएको हुँदा सेवा संचालनमा समस्या रहेको छ । नेपाल सरकारको नाममा रहेको १० रोपनी जग्गा (साविक चादबाग स्कुल ल्याउन पहल गरिएको छ MBBS बाट सिधै ६ वर्षको कार्डियाक सर्जरी (MCh) र कार्डियोलोजी (DM Cardiology) को पढाई सम्वन्धमा सम्वन्धित निकायमा पत्राचार तथा समन्वय भई रहेको छ ।

अन्त्यमा, केन्द्रको विकास, विस्तार तथा स्थायीत्वको लागि निरन्तर लागिरहनु भएका केन्द्रमा कार्यरत सम्पूर्ण कर्मचारीहरु, स्वास्थ्य तथा जनसंख्या मन्त्रालय, नेपाल सरकारका सरोकारवाला निकायहरु, केन्द्रका वर्तमान एवं पूर्व संचालक समितिका सदस्यज्यूहरु, पूर्व कार्यकारी निर्देशकज्यूहरु, पूर्व कर्मचारीहरु, रक्तदाताहरु, चन्दादाताहरु, गैर-सरकारी संस्थाका प्रतिनिधिहरू, पत्रकारहरु, विरामी तथा उहाँहरुका आफन्तहरु एवं सम्पूर्ण शुभेच्छुकमा हार्दिक धन्यबाद व्यक्त गर्न चाहन्छु ।

मितिः २०८२ माघ १५ गते, बिहिबार ।

आर्थिक बर्ष २०८१/०८२ को कार्यक्रम प्रगति तथा आय ब्यय विवरण

-आर्थिक प्रशासन महाशाखा

केन्द्रको मुख्य उदेश्य मुटुरोगीहरुलाई सहज, सर्भसुलभ र उच्चस्तरीय सेवा प्रदान गर्नू हो । केन्द्रले आफ्नो उदेश्य प्राप्तिका लागि बिगतका बर्षहरुमा झैँ बिभिन्न कार्यक्रमहरु संचालन गरेकोमा भौतिक र वित्तीय प्रगतिमा केन्द्रले शत प्रतिशत सफलता हासिल गरेको छ। ती कार्यक्रम संचालनका लागि नेपाल सरकारको तर्फबाट अनुदान स्वरूप रु. ४६ करोड ५२ लाख प्राप्त भएको छ। जसमध्ये नेपाल सरकारद्वारा बजेट बक्तब्य मार्फत १५ बर्ष मुनिका बाल मुटुरोगी, ७५ बर्ष माथिका जेष्ठ नागरिक, बाथ मुटुरोगी र भाल्भ साँगुरिएका मुटुरोगीहरुका लागि रु. ४१ करोड २० लाख र अन्य मुटुको शल्यक्रियाका सामानका लागि ५ करोड ३२ लाख सहित कूल रु. ४६ करोड ५२ लाख बजेट प्राप्त भएको हो। नेपाल सरकार स्वास्थ्य करकोषको केन्द्रले प्राप्त गर्दै आएको अनुदान बिगतका बर्ष झैँ यस बर्ष पनि केन्द्रलाई प्राप्त भएन। स्वास्थ्य करकोष जुन परिकल्पना र उदेश्य अनुरुप स्थापना र गठन भएको हो त्यसलाई विचार गर्ने हो भने पक्कै पनि केन्द्र स्वास्थ्य करकोषको अनुदानबाट बिमुख नहुनु पर्ने हो ।

केन्द्रले सम्पूर्ण संचालन खर्च र केही पूजीगत खर्च समेत आफ्नो आन्तरिक श्रोतबाट गर्दै आएको कुरा यहाँ प्रस्तुत गरिएको तथ्यांकले समेत पुष्टि गर्दछ । यस आर्थिक बर्षमा केन्द्रले आन्तरिक श्रोतबाट संचालन तथा पूजीगत खर्च गर्नेगरी रु. २ अरब ४६ करोड २३ लाख बजेट संचालक समितिबाट स्वीकृती गरेको थियो। यस आर्थिक बर्षको कूल बजेट २ अरब ९२ करोड २३ लाख मध्ये कूल बजेटको १६ प्रतिशत मात्र नेपाल सरकारबाट प्राप्त भएको र बाकी ८४ प्रतिशत केन्द्रले आन्तरिक श्रोतबाट खर्चगर्ने गरी व्यवस्था गरेको छ।

आर्थिक बर्ष २०८१/०८२ मा केन्द्रले सम्पादन गरेका मुख्य मुख्य कार्यक्रम तथा उपलब्धिहरु निम्नानुसार छन्।

१. परिक्षण सेवा:

यस आर्थिक बर्षमा केन्द्रले १०३,८४४ जना पुरुष तथा ९२,३९३ महिला सहित कुल १९६,२३७ जना मुटुका बिरामीहरुलाई बहिरंग सेवा उपलब्ध गराएको छ ।

२. शल्यक्रृया सेवा:

यस आर्थिक बर्षमा १५०० जना मुटुका बिरामीहरुको शल्यक्रृया गर्ने लक्ष्य राखेकोमा यस बर्षको अन्त्यसम्ममा कुल १९२७ जना बिरामीहरुको शल्यक्रृया गरिएको छ ।

३. १५ बर्ष मुनिका बालबालिका तथा ७५ बर्ष माथिका जेष्ठ नागरिक निशुल्क उपचार कार्यक्रम :

केन्द्रले नेपाल सरकारको कार्यक्रम तथा बजेट बक्तब्यमा घोषित राहत कार्यक्रमलाई निरन्तरता दिदै यस बर्ष पनि १५ बर्ष मुनिका बालबालिका तथा ७५ बर्ष माथिका जेष्ठ नागरिकहरुको निशुल्क उपचार गरेको छ . नेपाल सर कारको घोषित राहत कार्यक्रम अन्तर्गत १५ बर्ष मुनिका बालबालिकाको ७०० जना ७५ बर्ष माथिका जेष्ठ नागरि ककको ६०० जनाको शल्यक्रिया तथा उपचार गर्ने लक्ष्य राखेकोमा ७२७ जना शुल्क तिर्न नसक्ने गरिब बालबालिका तथा १२२८ जना जेष्ठ नागरिकहरुको बिभिन्न किसिमको शल्यक्रिया र उपचार गरेको छ।

४. बाथ मुटुरोग शल्यक्रिया कार्यक्रम:

केन्द्रले नेपाल सरकारको कार्यक्रम तथा बजेट बक्तब्यमा घोषित राहत कार्यक्रम अन्तर्गत यस बर्ष ७०० जना बाथ मुटुरोगीहरुको शल्यक्रिया गर्ने लक्ष्य राखेकोमा ६२५ जना विरामीको शल्यक्रिया सम्पन्न गरेको छ ।

५.पि टि एम सी (मुटुको साँगुरीएको भल्व खोल्ने)

यस बर्ष निशूल्क पि टि एम सी (मुटुको साागुरीएको भल्व खोल्ने) कार्यक्रम अन्तर्गत ३०० जना विरामीको उपचार गर्ने लक्ष्य राखेकोमा ३२५ जना बिरामीहरुको पि टि एम सी(बलून द्वारा साघुरिएको भाल्भ खोल्ने)

पध्दति मार्फत उपचार गरेको छ।

६. क्याथल्याब सेवा :

यस बर्ष क्याथल्याब मार्फत कूल १२,६२८ जना बिरामीहरुको उपचार गरिएकोमा ५,६९८ जनाको एन्जियोग्राफी, १८६१ जनाको एन्जियोप्लास्टी, ८०२ जनाको प्राइमरी एन्जियोप्लास्टी, ५८४ जनाको पेशमेकर, ३७१ जना ए एस डि, भी एस डी, पि डि ए डिभाइसक्लोजर, ४ जना टाभी, ४५३ जना इ पि ए; / आर एफ ए/ ३ डी म्यापिंग तथा २८५५ अन्य लगायत बिभिन्न मुटुका रोगहरुको परिक्षण, उपचार र निदान गरिएको छ।

७. सिटि स्क्यान सेवा :

यस बर्ष पनि केन्द्रले मुटु तथा अन्य रोगका बिरामीहरुलाई केन्द्रमा रहेको अत्याधुनिक कार्डियाक सिटि स्क्यान मार्फत सेवा प्रदान गरेको छ। जसमध्ये ४,३८४ जनाको कोरोनरी एन्जियोग्राफी, ६९४ पल्मोनरी एन्जियोग्राफी, २४ रेनल तथा पेरिफेरल एन्जियोग्राफी र बाकी अन्य १,६४४ सिटि स्क्यान गरी जम्मा कूल ६,७४६ जना बिरामीहरु छन् ।

८. कार्डियाक एम आर आइ सेवा :

यस बर्ष केन्द्रमा रहेको अत्याधुनिक कार्डियाक एम आर आइ मार्फत १०४६ जना बिरामीहरुले सेवा प्राप्त गरेका छन् । ८२३ जना कार्डियाक एम आर आइ रुटिन तथा म्यापिंग छन् भने २२३ जना अन्य एम आर आइ सेवा छन् .

९. प्रतिकारात्मक कार्यक्रम :

यस बर्ष केन्द्रले प्रतिकारात्मक कार्यक्रम अन्तर्गत बिभिन्न जिल्लामा १० वटा निशुल्क शिविर संचालन गरी ५,९०१ जना बिरामीहरुको मुटुरोग निदान, उपचार र अनुसन्धान गरेको छ उक्त निशुल्क शिविरमा १४०२ जना बिरामीहरुको इ सि जी(ECG), ५,६७८ जना बिरामीहरुको इको (ECHO) र ४,२६३ जना बिरामीहरुको ब्लड प्रेसर(BP) तथा १७६ जना असामान्य मुटुका बिरामीहरु को जाँच गरिएको छ।

१०. बिपन्न नागरिक तथा स्वास्थ्य वीमा उपचार :

केन्द्रले यस आर्थिक बर्षमा बिपन्न नागरिक मुटुका बिरामीहरुलाई नेपाल सरकार बिपन्न नागरिक उपचार कोषबाट रु. ३६ करोड १४ लाख ८१ हजार ३९६/- बराबरको ३,७६० जनालाई उपचार सेवा प्रदान गरेको छ।

त्यस्तै यस बर्ष स्वास्थ्य बीमा अन्तर्गत रु. १४ करोड २१ लाख ४६ हजार १८९ बराबरको ४७,१२४ जना मुटुका विरामीहरुलाई स्वास्थ्य बीमा सेवा प्रदान गरेको छ।

सामाजिक सुरक्षा कोषबाट रु. ४२ लाख ७१ हजार ९४६ बराबरको ११४१ जना मुटुका बिरामीहरुको निदान, उपचार र शल्यक्रिया गरेको छ।

यसरी केन्द्रले नेपाल सरकारले घोषणा गरेका बिभिन्न राहत कार्यक्रमहरुलाई बिगत देखि नै अपनत्व लिई आवश्यक उपचार सेवा प्रदान गर्दै आएको छ।

उक्त राहत कार्यक्रमले गर्दा बिपन्न, गरिव असहाय तथा निमुखा मुटुरोगी बिरामीहरुले आर्थिक अभावका कारण उपचारबाट बन्चित हुनु परेको छैन।

योजना :

केन्द्रले यस आर्थिक बर्षमा बार्षिक कार्यक्रम तथा विकासका कार्य संचालन गर्नका लागि तय गरेको बजेट सोही बमोजिम पारदर्शी रुपमा खर्च गरी भौतिक र वित्तीय प्रगति हासिल गरेको छ। लक्ष्यका आधारमा नेपाल सरकार बाट प्राप्त अनुदान ४६ करोड ५२ लाख पूर्ण खर्च भइ शत प्रतिशत वित्तीय प्रगति गर्न सफल भएको छ भने भौतिक प्रगति १५५.५१ प्रतिशत भएको देखिन्छ। केन्द्रको आन्तरिक तर्फ २ अर्ब ४६ करोड २३ लाख बजेटको व्यवस्था गरे कोमा २ अर्ब २५ करोड २५ लाख ५३ हजार खर्च भई ९१.४८ प्रतिशत वित्तीय प्रगति भएको देखिन्छ भने भौतिक प्रगति पनि सोही बमोजिम भएको छ ।

मुटुरोगीहरुलाई स्वदेशमा नै सर्वशुलभ रुपमा उच्चस्तरीय उपचार सेवा र सुबिधा प्रदान गर्नं नै केन्द्रको मूल उदेश्य हो। सरुवा रोगको तुलनामा नसर्ने रोगको भयावह स्थिति संगसंगै केन्द्रमा सेवा लिन आउने मुटुका बिरामीहरुको अत्यधिक चापलाई मध्यनजर गर्दै केन्द्रको लक्ष्य र योजना बमोजिम आगामी बर्षमा मुटुका बिरामीहरुको उपचार

लाई समय सापक्ष र अन्तराष्ट्रिय स्तरको सेवा प्रदान गर्नका लागि हाल केन्द्रमा रहेका Cathlab Machine ले विर ामीको चाप धान्न सक्ने स्थिति नरहेकोले आ. व. २०८२/८३ मा अत्याधुनिक Hybrid Cathlab Machine खरीद गर्ने योजना रहेको छ। यसका साथै रोगको निदान र उपचार तथा शल्यक्रियामा समेत प्रयोग हुने उपकरण र औजार प्रयाप्त नभएकोले नेपाल सरकार स्वास्थ्य मन्त्रालय सँग बजेटका लागि अनुरोध गर्नका साथै केन्द्रको आन्तरिक श्रो तबाट समेत व्यवस्था गरिएको छ। आगामी बर्षमा केन्द्रमा दुई वटा अत्याधुनिक शल्यक्रिया कक्ष समेत थप भइ उक्त शल्यक्रिया कक्षबाट शल्यक्रिया गर्नपर्ने विरामीहरुलाई प्रयाप्त सेवा प्रदान गर्न सकिने छ।

नेपाल सरकारको नीति तथा कार्यक्रम बमोजिम मुटुरोगको निदान र उपचार बाट कोहि कसैले बिमुख हुन नपरोस भन्ने उदेश्य अनुरुप देशको सातै प्रदेशमा सेवा विस्तार गर्ने योजना रहेको छ। त्यसको लागि हालको प्राबिधिक तथा दक्ष जनशक्ति ले मुटुका बिरामीहरुको अत्यधिक चापलाई धान्न सक्ने स्थिति नरहेकोले देशबाट पलायन भएका र पलायन हुदै गरेका जनशक्ति लाई स्वदेशमानै उचित ब्यबस्थापन गर्न हाल प्रदान गर्दै आएको सेवा सुविधालाई समय सापेक्ष बनाई परिमार्जन गर्नू पर्ने टड्कारो आवश्यकता देखिन्छ साथै २०५२ सालमा ८ बेड बाट अन्तरङ्ग सेवा शुरु भएको यस केन्द्र हाल बयस्क भईसकेको छ अर्थात् लक्का जवान भईसकेको छ समयको माग हालको परिस्थिति र नसर्ने रोगको भयाबह तथ्यांकलाई गम्भीर भएर सोच्ने हो भने केन्द्रले प्रदान गर्दै आइरहेको सेवालाई लक्ष्य, योजना र उदेश्य अनुरुप अन्तराष्ट्रिय स्तरको बनाउनका लागि हाल केन्द्रले चर्चेको जग्गा र देशभरी रहेका जनशक्ति पक्कै प्रयाप्त छैन त्यसैले जतिसक्दो चांडो नेपाल सरकारले नेपाल सरकारकै नाममा आइसकेको केन्द्र छेउछाउका जग्गा केन्द्रको नाममा नामसारी गरी सेवा विस्तारका साथै प्रतिष्ठान बनाउन तुरुन्त पहल कदमी गर्नपर्ने आवश्यकता देखिन्छ यसरी देशमानै आवश्यक जनशक्ति उत्पादन भइ मुटुको उपचारको क्षेत्रमा कोसेढुंगा साबित हुन जाने छ त्यसको लागि सम्बन्धित सरोकार निकायमा योजना र लक्ष्य सहितको अवाधराणापत्र पेश समेत गरिसकिएको छ।

नेपाल सरकारको नीति तथा कार्यक्रममा अत्याधुनिक बाल मुटुरोग अस्पताल निर्माण गर्ने योजनाको परिकल्पना बमोजिम भविष्यमा यस केन्द्रमा उपचार गर्न आउने कुनै पनि बालबच्चा मुटुरोगको समस्या, उपचार निदान र शल्यक्रियाबाट किन्चित बन्चित हुन नपरोस भन्नाखातिर कम्तिमा २०० बेडको अत्याधुनिक बाल मुटुरोग अस्पताल निर्माणमा नेपाल सरकारबाट तुरुन्त पहलकदमी गर्नपर्ने देखिन्छ हाल देशैभरि र केन्द्रको पेरिफेरीमा समेत बाल मुटुरोगीको उपचार तथा निदानका नाममा तथाकथित उपचार केन्द्रहरु खुलेता पनि केन्द्रले बाल मुटुरोगीहरुलाई प्रदान गर्दै आएको बिशिष्ट प्रबिधि तथा अन्तरास्ट्रियस्तरको सेवाको विकल्प कदापी हुन सक्दैनन साथै देश भरिका मुटुरोगी बिरामी बालबच्चा कुनै आर्थिक अभावले उपचारबाट बिमुख हुनुपर्ने छैन र उपचारका लागि विदेश जानुपने स्थिति समेत रहने छैन।

निष्कर्ष:

अन्तमा केन्द्रले बिगत २०६३/०६४ देखि सेवा प्रदान गर्दै आएको नेपाल सरकारबाट घोषित राहत कायक्रम १५ बर्ष मुनिका बालबालिका तथा ७५ बर्ष माथिका जेष्ठ नागरिक निशुल्क उपचार, बाथ (Free VALVE) मुटुरोग शल्यक्रिया, मुटुको साँगुरीएको भल्व खोल्ने (**PTMC**) निशुल्क उपचारका लागि नेपाल सरकार स्वस्थ्य मन्त्रालयबाट अनुदान स्वरूप प्राप्त बजेट रकम बिरामीहरुको अत्यधिक चाप र ती बिरामीहरुको शल्यक्रियामा लाग्ने मुटुभित्र प्रत्यारोपण गर्नपर्ने Devices तथा औषधीजन्य मेडिकल सामान विदेशी मुद्रामै खरीद गर्नपर्ने हुन्छ साथै विरामीको रोग र विर ामीको अस्पताल बसाई अनुसार खर्च हुने भएकोले नेपाल सरकारद्वारा प्रति बिरामी छुट्याएको निशुल्क उपचार अनुदान रकम प्रयाप्त नभएकोले अनुदान रकम बृध्दि गर्नं पर्ने देखिन्छ। यस केन्द्रमा स्वास्थ्य बीमा र बिपन्न नागरिक औषधी उपचार सेवा लिन आउने मुटुरोगीहरुको चापको ग्राफ प्रत्येक बर्ष उकालो लागेको तथ्यांकबाट अनुमान लगाउन सकिन्छ। साथै केन्द्रले बीमा र बिपन्न नागरिक औषधी उपचार उधारोमा गर्नपर्ने र नेपाल सरकारबाट पाउनु पर्ने करोडौ सोधभर्ना रकम समयमानै केन्द्रले प्राप्त गर्न नसक्दा केन्द्रले करोडौको आर्थिक भार खेपिरहनु परे को अवस्था छ। यसलाई नेपाल सरकारले समयमै सम्बोधन गर्नपर्ने देखिन्छ।

शहीद गंगालाल राष्ट्रिय हृदय केन्द्र, बांसबारी, काठमाण्डौ
आर्थिक वर्ष २०८१।८२
एकिकृत आर्थिक विवरण:

प्राप्ति विवरण	अनुसूची	रकम	भुक्तानी विवरण	अनुसूची	रकम	रकम
गतवर्षको जिम्मेवारी	८(ग)	४११४०२६३७५.२८	जम्मा बजेट खर्च	८(ख)		२७९५०२७८२४.४९
गतवर्षको जिम्मेवारी(जनकपुर)	ज १	१५९८७९८.०२	यो वर्षको बजेट खर्च(जनकपुर)	ज १	१७६६७९३४.१४	
गतवर्षको जिम्मेवारी धरौटी	२	९,६०९,०२७.७५	यो वर्षबजेट खर्च केन्द्र	८	२७८२६३१०८.९८	०
नेपाल सरकारबाट प्राप्त अनुदान	५	४६५,२००,०००.००	गतवर्षको भुक्तानी खर्च	८(क)	५९०९६७८१.३७	०
स्वास्थ्य करकोषबाट प्राप्त अनुदान			पेस्की बाँकी	९		७३१०२५०९.२९
रिटेन्सन तथा धरौटी आम्दानी	२	९,९५२,०२७.००	बैंक मौज्दात	१क	३२२६५०२२६९.१०	३२२६५०२२६९.१०
आन्तरिक स्रोत आम्दानी	४	२२२७२६१८०६.८९	जम्मा लिनु पर्ने	१०		३८९३२११७५.७०
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ब्याज आम्दानी	३	८९,८९८,५६५.१३	चयारिटी तथा मिनाह खर्च	७		४६५९१२८२.००
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(नरेश चिपालु)
वरिष्ठ लेखा अधिकृत

(मनोज कुमार बिष्ट)
आर्थिक प्रशासन प्रमुख

(डा रवि मल्ल)
कार्यकारी निर्देशक

(झविन्द्र प्रसाद भण्डारी)
आन्तरिक लेखापरीक्षक

A GLIMPSE OF THE DEPARTMENT OF CARDIOVASCULAR SURGERY

Dr. Nishes Basnet and Dr. Deepika Yadav

INTRODUCTION

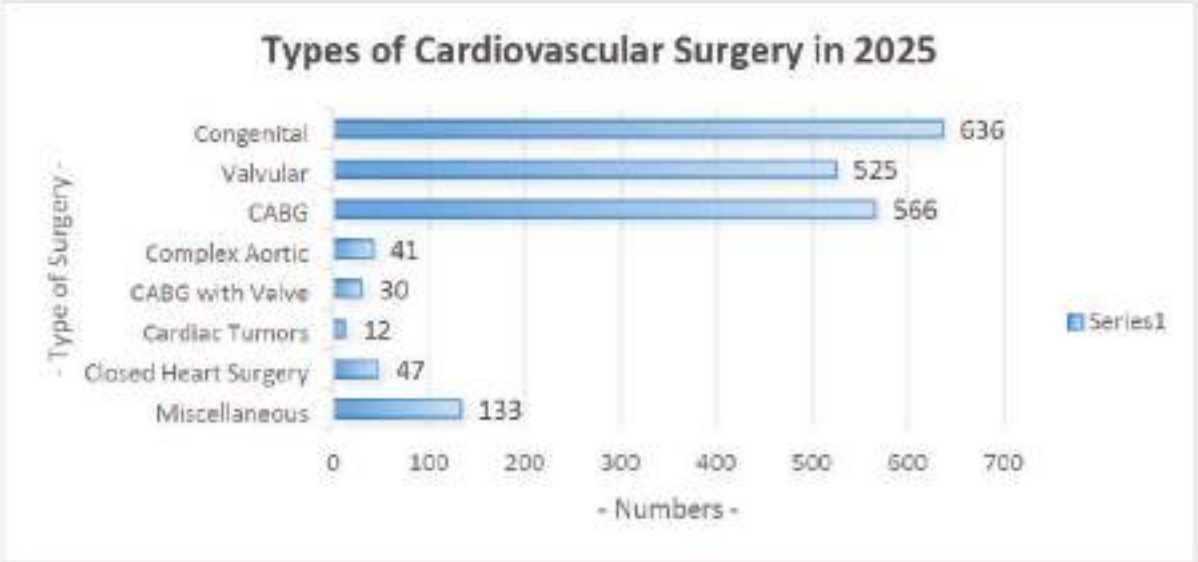
The Department of Cardiovascular Surgery at Shahid Gangalal National Heart Center,Kathmandu, reflects the year 2025 - a year of steady hands, thoughtful decisions, and collective responsibility where each cardiac surgical procedures contributed to our continued commitment to safe, ethical, and compassionate patient care.Throughout the year, the department provided safe, timely, and evidence-based cardiac surgical services to patients with a wide range of cardiovascular diseases. Despite increasing case complexity and referral volume, the department maintained high standards of surgical care through adherence to established clinical protocols, multidisciplinary collaboration, and continuous quality improvement initiatives. This report reflects the collective contribution of cardiac surgeons, anesthesiologists, intensivists, perfusionists, nursing staff, and allied healthcare professionals who worked together to ensure optimal surgical outcomes and patient safety

CLINICAL ACHIEVEMENTS

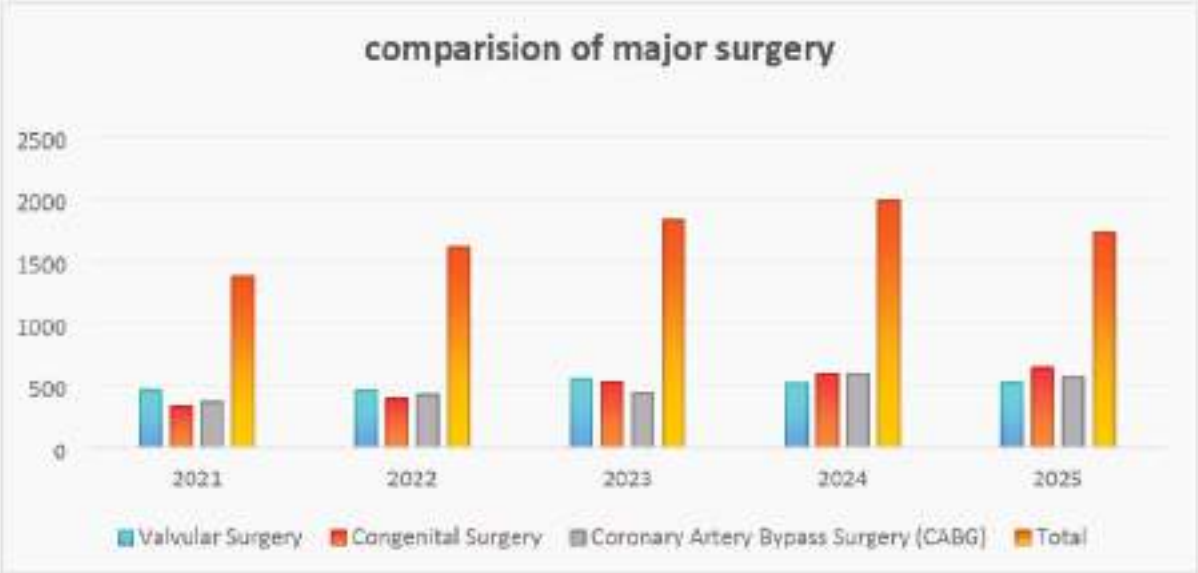
In 2025, Shahid Gangalal National Heart Center reached a historic milestone with the completion of 25,000 open heart surgeries.

During the reporting year, a total of 1,990 cardiac surgical procedures were performed. Of these, 1,812 cases were open-heart surgeries, 636 congenital surgeries. 525 valvular surgeries and 596 Coronary artery bypass grafting procedures. Among the complex aortic procedures, 30 Modified Bentall,s surgeries were successfully performed.

Miscellaneous procedures include 133 cases of Re-exploration, Epicardial pacemaker insertion or Generator replacement, Pseudoaneurym repair, Emergency removal of stuck devices like ASD, guidewires etc.



The re-exploration rate in 2025 was 3.467% and overall mortality in cardiovascular surgery is 3.75 % in 2025 .



ACTIVITIES

This year we welcome very energetic and enthusiastic registrar Dr. Sambriddhah Riddhi Karki, Dr. Vivek jha and Dr. Sangam KC in our department. Dr Rabindra Bhakta Timala and Dr. Reecha Joshi were awarded at the XXIII International congress on Management of Cardiovascular Disease held in October 2025 at Kathmandu.

Dr. Rabindra Bhakta Timala- Won the best case report award for the paper titled " Konno Rastan Aortoventriculoplasty: The Last Resort for Complex Left Ventricular Outflow Tract Obstruction" among case reports published in Nepalese Heart Journal in the year 2025. This was awarded by Cardiac Society of Nepal. He also participated in the 9th World Congress of Pediatric Cardiology and Cardiac Surgery held in Hong Kong from December 7 to 12, 2025.

Dr. Nishes Basnet- Got FELLOW OF AMERICAN COLLEGE OF SURGEONS (FACS) Clinical congress 2025 4th - 7th October Chicago, IL

Dr. Reecha Joshi- Won the best presentation on abstract presentation titled Aortic Valve disease in practice: Insights from a Single center Retrospective Surgical study at conference held in Kathmandu. she also participated in peer review workshop.

RESEARCH AND EDUCATION

In 2025, the Department of Cardiac Surgery continued to advance its commitment to academic excellence through focused research, training, and educational initiatives. Our team actively engaged in clinical and surgical research aimed at improving patient outcomes, refining surgical techniques, and contributing to the global body of cardiovascular knowledge.Education and training remained a cornerstone of our mission. The department hosted and guided residents, fellows, and nursing staff through structured academic programs, hands-on surgical training, and case discussions. Continuous professional development workshops and simulation-based training enhanced technical skills, decision-making, and team coordination. Our department is committed to advancing the field through research and education. This year, we published many peer-reviewed articles in leading medical journals and presented our findings at many national and international conferences.

1. Several presentations were done by the faculty members of cardiac surgery at the XXIII International Congress on Management of Cardiovascular Diseases held on 31 October-1November 2025in Kathmandu, Nepal.

a) Dr. Rabindra Bhakta Timala presented on the topics: " Tricuspid Valve Repair: How to do it right?", "Neo Pulmonary Valve Creation from Right Atrial Appendage in TOF", in the international conference of Nepal Cardiac Society, held in Kathmandu from 31 October to 1 November 2025. Also talked about "Double Root Translocation" in the talk titles "Innovation in Cardiology and Cardiac Surgery " during the same conference. And Published an article titled "Approaching Type A Aortic Dissection with Zero Mortality:

Personal Biases " as a first author in the Journal MAR Cardiology and Heart Diseases Volume 4 Issue 4 , Dec 1, 2025.

b) Dr. Sidhartha Pradhan talked on the topic " Hypoplastic Aortic Arch in Nepal

c) Dr. Navin C. Gautam presented about Unifying surgery and intervention to reshape the future of cardiac care "

d) Dr. Bishow Pokharel presented on the topic "Off pump CABG: Nepal's perspective".

e) Dr. Nirmal Panthee gave a talk on "Management of TOF in Low Resource Settings"

f) Dr.Reecha Joshi gave a talk on " Communication at the Crossroads Surgeon-Anesthesiologist Synchrony in the OR".

2. Multidisciplinary CMEs are being carried out on a weekly with participation from surgery, anesthesia/critical care, pediatric cardiologists, perfusionists, radiologist, and ICU nurses.

3. Publications:

a. Joshi, R., Mahaju Bajracharya, S., & Joshi, D. (2025). Young Heart Health: A Call for Early Prevention and National Vigilance. Nepalese Heart Journal, 22(2), 1–3. https://doi.org/10.3126/nhj.v22i2.85784

b. Shakya, A., Shakya, U., Shrestha, M., Timala, R. B., Pradhan, S., Shah, S. C., … Khadka, D. (2025).

Pilot Observational Cohort study to assess the feasibility of initiating a paediatric cardiac registry. Nepalese Heart Journal, 22(2), 21–26. https://doi.org/10.3126/nhj.v22i2.85789

c. Gautam, N. C., Joshi, R., Panthee, N., Bohara, S., Gautam, A., & Chaudhary, A. (2025). Seven Years Single Center Experience of Combined Coronary Artery Bypass Surgery with Aortic Valve Replacement: retrospective cohort Study. Nepalese Heart Journal, 22(2), 27–32. https://doi.org/10.3126/nhj.v22i2.85790

d. Joshi, R., Bohara, S., Devkota, S., Chaudhary, J. M., Thapa, E., Shah, M. K., & Gautam, N. C. (2025). The Invisible Clot Maker: Eosinophilia Causing Recurrent Prosthetic Valve Thrombosis- A Case Report. Nepalese Heart Journal, 22(2), 75–78. https://doi.org/10.3126/nhj.v22i2.85798

INNOVATIONS AND DEVELOPMENTS IN CARDIAC SURGERY

In 2025, Shahid Gangalal National Heart Center continued to strengthen its role as a pioneer in cardiac surgical care through the adoption of innovative techniques, advanced technology, and process improvements. The department focused on enhancing surgical precision, patient safety, and outcomes while expanding its capacity to manage complex and high-risk cases.Through ongoing innovation and development, Shahid Gangalal National Heart Center remains at the forefront of cardiac surgical care in Nepal, delivering advanced, safe, and compassionate treatment for patients with complex cardiac conditions.

FUTURE

Looking ahead, we are excited about several upcoming projects, including the extension of our adult and pediatric cardiac surgery units in the near future. The new pediatric complex is planned for construction soon. We are planning to extend the number of operation theatres to increase the number of surgeries performed daily to alleviate the waiting list.

CONCLUSION

The Department of Cardiac Surgery demonstrated consistent performance and sustained clinical activity throughout 2025. Future goals include further optimization of outcomes, expansion of advanced cardiac procedures, and continued commitment to high-quality patient care.

DEPARTMENT OF CARDIAC ANESTHESIA

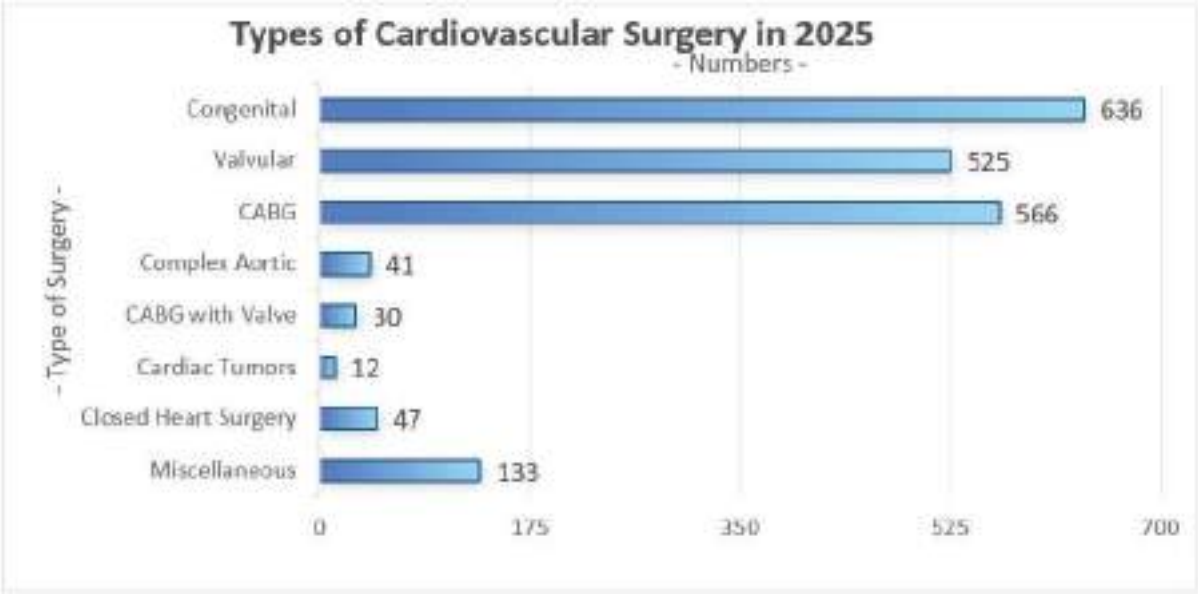
The Department of Cardiac Anesthesia at Shahid Gangalal National Heart Centre(SGNHC), established in 2001, specializes in providing advanced perioperative care for cardiac patients. The team comprises 5 registered anesthesiologists. The department's services include: perioperative anaesthesia care comprising of Preoperative Preparation (Assessing and preparing patients for cardiac surgery), and Intraoperative Management (Delivering advanced anesthesia care and utilizing transesophageal echocardiography during procedures).

In addition, the department provides anesthetic support for pediatric catheterization, CT scans, and primary percutaneous coronary interventions (PCI) performed outside the operating room, ensuring comprehensive cardiac care.

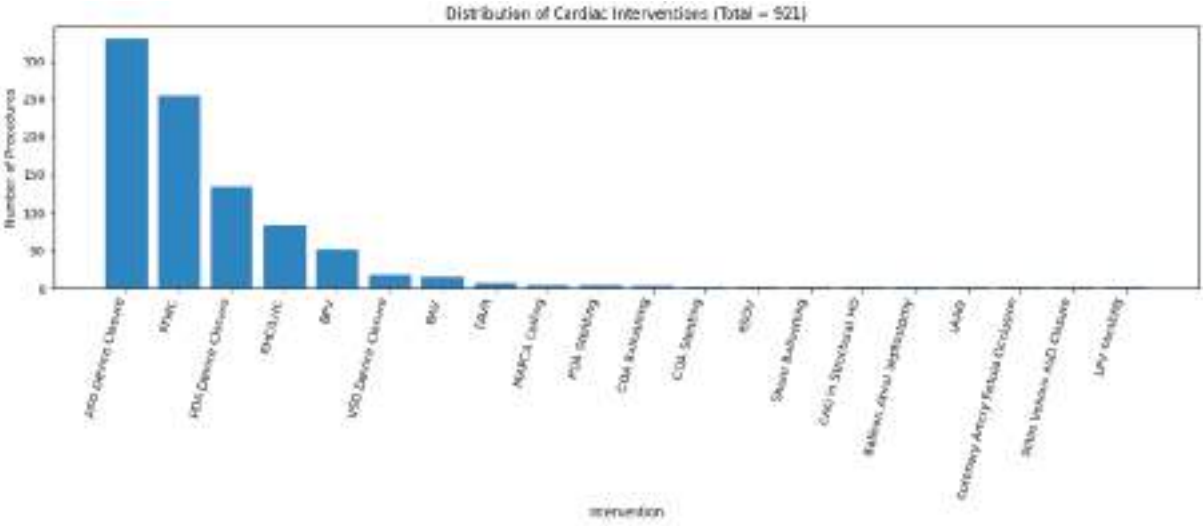
PERFORMANCE HIGHLIGHTS (2025)

In the year 2025, a total of 1990 cardiac operation were performed, reflecting a significant contribution to pediatric and adult cardiac care.

A total of 636 congenital heart disease operations were performed, Surgical management of valvular heart disease accounted for 525 procedures, while coronary artery bypass grafting (CABG) was carried out in 566 patients, highlighting the ongoing burden of ischemic heart disease. Additionally, 41 complex aortic surgeries were successfully completed, along with 30 combined CABG and valve procedures, addressing advanced and high-risk cardiac conditions. The surgical program also included 12 cardiac tumor excisions, 47 closed heart surgeries, and 133 miscellaneous cardiac procedures, (Re-exploration, AV fistula, wound debridement, Secondary closure, Pacemaker) demonstrating a broad and comprehensive range of cardiac surgical services delivered throughout the year.



NON-OPERATING ROOM ANESTHESIA



A total of 921 cardiac interventions were performed during the reporting period. The most common procedure was ASD device closure, accounting for 329 cases, followed by percutaneous transluminal mitral commissurotomy (PTMC) with 256 procedures. PDA device closure was performed in 135 patients, while right and/or left heart catheterization (RHC/LHC) accounted for 83 cases. Balloon pulmonary valvuloplasty (BPV) was carried out in 51 patients. Less frequently performed procedures included VSD device closure (18 cases), balloon aortic valvuloplasty (14 cases), and transcatheter aortic valve replacement (7 cases). Other interventions such as MAPCA coiling and PDA stenting were each performed in 5 cases, while coarctation ballooning was done in 4 cases. Procedures including coarctation stenting, RSOV closure, shunt ballooning, CAG in structural heart disease, and balloon atrial septostomy were each performed in 2 patients. Rare interventions included left atrial appendage occlusion, coronary artery fistula occlusion, sinus venous ASD closure, and LPV stenting, with one case each.

ACADEMIC CONTRIBUTIONS AND ACHIEVEMENTS

TRAINING AND EDUCATION

- Fellowship Programs: The department's cardiac anesthesia fellowship program continues to produce highly skilled anesthesiologists, with new fellow ongoing the training for 2025-26 session.
- Residency Training: Residents from National Academy of Medical Sciences (NAMS)-Bir Hospital and other private medical colleges like Kathmandu Medical College and Nepal Medical College undergo specialized training in cardiothoracic anesthesia, equipping them with advanced clinical skills and expertise.

FACULTY ACHIEVEMENTS

Dr. Ashish Govinda Amatya:

- Speaker at the 7th National Conference of NSCCM (Nepalese Society of Critical Care Medicine); Hemodynamic Monitoring Workshop 13th December 2025 at Shahid Gangalal National Heart Center

Patient blood management course 2025, Speaker

Dr. Sandip Bhandari:

- Speaker at the 7th National Conference of NSCCM; Hemodynamic Monitoring Workshop 13th December 2025 at Shahid Gangalal National Heart Center

Dr. Smriti Mahaju:

- Speaker at the 15th Congress of the Asian Society of Cardiothoracic Anesthesia (ASCA) 2025, held in conjunction with the 9th Annual Scientific Meeting of the Indonesian Association of Cardiovascular Anesthesiologist at the Jimbaran Convention Center, Bali, Indonesia, from 1st to 4th July 2025.
- Coordinator of cardiac anesthesia and critical care sessions in XXIII International Congress on the Management of Cardiovascular Disease, held from 30th October to 1st November 2025 in Kathmandu.
- Speaker at the 7th National Conference of NSCCM; Hemodynamic Monitoring Workshop 13th December 2025 at Shahid Gangalal National Heart Center
- Participation in Peer-Reviewers Training Workshop Organised by SAN – Society of Anaesthesiologists of Nepal, and Journal of SAN In Collaboration with Name - Nepal Association of Medical Editors on 18th October,2025

Dr. Santosh Parajuli:

- On going fellowship in Pediatric Cardiac Anaesthesia and Intensive Care

Dr. Subigya Sitaula

- Attended Nepal cardiac surgery capacity building program, Seoul national university children's hospital from April 10 2025- April 30 2025.

Dr. Sanjeep Ranjitkar:

- Presented on the topic Pulmonary Hypertension Organised by SAN – Saciety of Anesthesiologist of Nepal on 3rd May 2025.
- Participated on 7th national conference of Nepalese Society of Critical care medicine on 20th December 2025.

FUTURE DIRECTIONS

The department aims to address evolving healthcare challenges through the following initiatives:

- Strengthening goal-directed patient blood management to minimize transfusion-related risks.
- Expanding subspecialty services in pediatric anesthesia.
- Investing in advanced equipment and staff training programs to enhance perioperative care and patient safety.

By pursuing these objectives, the department remains committed to providing high-quality care, fostering education, and contributing to advancements in the field of cardiac

CARDIAC CRITICAL CARE AT SGNHC: A PROGRESS REPORT AND PATH AHEAD

Dr Battu Kumar Shrestha, Dr Kul R Thapa, Dr Sanjeep Ranjitkar

History of cardiac services and intensive care in Nepal are interlinked together. Management of complex cardiac disease is almost impossible without a skilled critical care team. Being the sensitive nature of the heart, a small lapse in management can lead to serious consequences. At Shahid Gangalal National Heart Centre, cardiac critical care has developed steadily over the years to meet these challenges and continues to evolve in response to changing patient needs. Inpatient services at SGNHC began in Baisakh 2056 BS. Intensive care services were established soon after, in Bhadra 2058 BS. Since then, the centre has grown into a national referral hospital for cardiac care, now operating more than 300 hospital beds, including around 70 dedicated to critical care. This growth shows both rising patient numbers with increasing complexity of cardiac procedures performed at the centre.

Over the years, critical care services at SGNHC have undergone a significant transformation. For a long time, the centre adopted an open ICU model, where primary physicians or surgeons managed patients with support from critical care specialists, while retaining their primary decision-making authority. Although this model allowed continuity with the primary treating team, it often resulted in variability in care, delayed decision-making, and challenges in coordinating complex ICU management.

With the development of critical care practice globally and the availability of trained intensivists, SGNHC has taken an important step forward by initiating closed critical care services. With this model, cardiac intensivists have the major responsibility for patient care within the ICU, while cardiologists and cardiac surgeons have consultative and collaborative support. Evidence from multiple studies has shown that closed or semi-closed ICU have improved patient outcomes, with reduced mortality, shorter ICU stays, and more efficient use of resources.

Decision-making becomes faster. Implementation of treatment plans becomes more consistent and communication gaps are reduced.

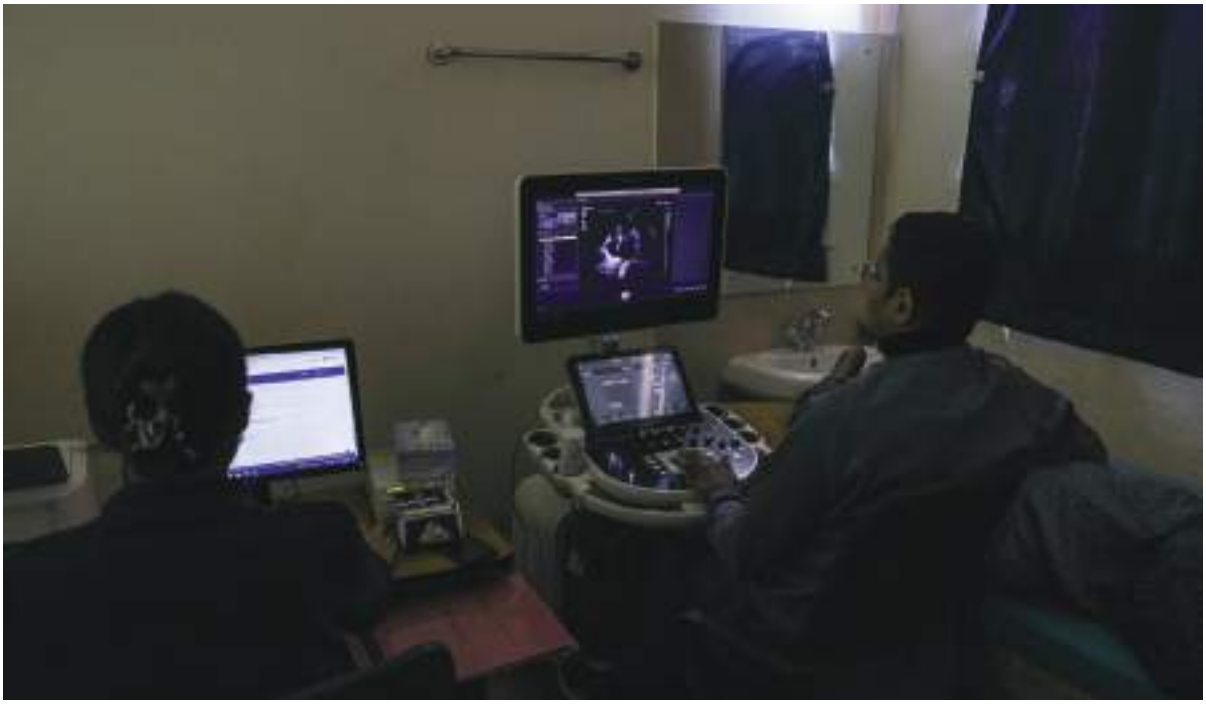
However, this transition has many challenges. Basic principles of a closed critical care system is strict adherence to standardized, institution-based protocols. In a cardiac centre like SGNHC, where cardiologists and cardiac surgeons have their individual management preferences, developing and implementing uniform protocols is challenging. Consultants who are used to open ICU practices may be reluctant to the control of a critical care team. To overcome these challenges needed clear vision and good teamwork. Our team is well aware of these needs and has been actively working in a collaborative manner.

At the moment, the critical care team is providing services across a wide range of clinical areas, including adult and pediatric surgical ICUs, during emergency re-exploration of post-operative cardiac cases, coronary care units and catheterization laboratories. Infection prevention and control (IPC) is also a major challenge in cardiac critical care practices, where patients are highly vulnerable due to critical illness, reduced immunity, invasive monitoring, and prolonged ICU stays. To implement effective IPC measures, in resource-limited settings is itself a huge task. IPC measures like strict hand hygiene practices, proper use of personal protective equipment, and sterile techniques during procedures may be suboptimal. These require regular staff education, training and monitoring. Intensivists must remain up to date with the evidence-based practices and emerging technologies. Nursing staff should be trained regularly in patient monitoring, ventilator management, and emotional resilience to overcome stress in the ICU environment. We are conducting regular classes, workshops, bedside teaching, and academic discussions related to daily patient care. We have academic collaboration with Seoul National University Hospital (SNUH), South Korea, through a virtual case conference . These virtual discussions, focused on hospital-acquired infections and complex post-operative cases, are helpful for quality improvement, identification in system-level gaps, and also refining of protocols to reduce post-operative complications.

Infrastructure development is also another area of progress. We are planning to expand an additional 14 beds for the cardiothoracic surgical ICU to accommodate increasing patient volume. One of our future plans is the establishment of separate adult and pediatric cardiac critical care teams. This separation will allow more focused patient care, training, and improved outcomes for both adult and pediatric cardiac patients.

Despite these advances, being in developing countries, we have financial limitations to procure and maintain advanced equipment such as ECMO systems, advanced hemodynamic monitors, and modern ventilators. International training opportunities and advanced simulation-based education are not an easy option.

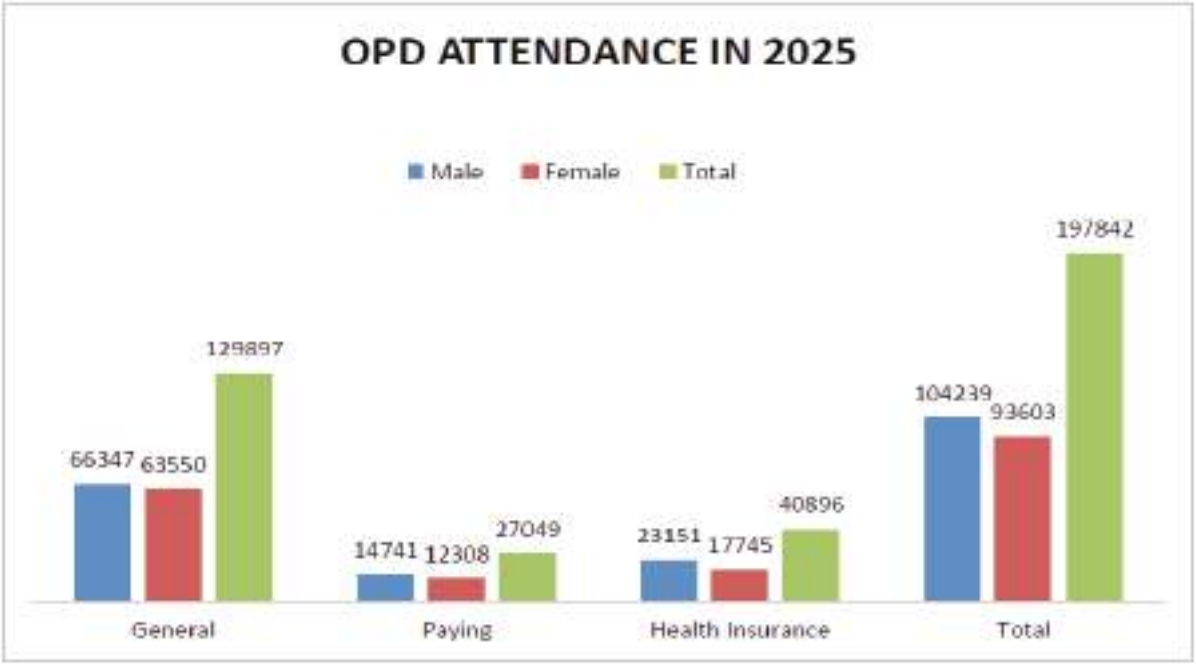
In conclusion, the journey from open to closed critical care services at Shahid Gangalal National Heart Centre is a major step forward in improving cardiac critical care in Nepal. With progress in manpower, training, infrastructure, and international collaboration, SGNHC is going to be at a central position in cardiac critical care services in Nepal.



NON–INVASIVE CARDIOLOGY AND OPD SERVICES

Cardiology Unit III

Established in 1995, Sahid Gangalal National Heart Centre (SGNHC) is the one of the oldest tertiary cardiac centre of Nepal. Thousands of patient from all over the country has already been benefited from the various services it has been providing and the number of patient is increasing each year. Non-invasive cardiology focuses on detection and treatment of cardiac conditions using simple external tests, imaging tests without any invasive instrumentations. The hospital is well equipped with various such devices and machines and with our expert healthcare professionals, SGNHC is able to provide quality care for most of cardiac illnesses. These non-invasive tests are safe, cost-effective, painless and uncomplicated to perform. SERVICES PROVIDED As non-invasive and OPD service provider we perform various tests like electrocardiogram(ECG), Echocardiography which includes stress echo, Transthoracic and Transesohageal echo(TTE/ TEE), fetal echo,3D echo, treadmill test(TMT), Holter monitoring, Ambulatory BP monitoring(ABPM), Ultrasonography(USG), Doppler study including carotid, arterial and venous Doppler study, CT scan, MRI scan, X- ray and Benzathine penicillin injection. The 640 slice CT scan provides the services for CT coronary angiography, CT pulmonary angiography, CT aortogram in addition to CT of various body parts. The addition of MRI is the major strength to our resources in diagnosing rare cardiac conditions. With the provisions of these services the number of patients is increasing every year.



Number of Patients Receiving Non-Invasive Services in 2025

Investigations	Male	Female	Total
ELECTROCARDIOGRAM	44350	38198	82548
MAGNET ECG	997	734	1731
TMT	4724	3084	7808
HOLTER	2001	2038	4039
ABPM	2276	1907	4183
ECHOCARDIOGRAM	35046	32004	67050
ECHO SCREENING	208	216	424
DOBUTAMINE STRESS TEST	9	7	16
EXERCISE STRESS ECHO	0	0	0
FETAL ECHO	25	1462	1487
TEE	401	720	1121
USG ABDOMEN /PELVIS	1666	1517	3183
USG(THYROID , BREAST, MSK)	32	35	67
SINGLE LIMB ARTERIAL DOPPLER	15	17	32
SINGLE LIMB VENOUS DOPPLER	35	27	62
BILATERAL LOWER LIMB VENOUS DOPPLER	16	16	32
BILATERAL LOWER LIMB ARTEIRAL DOPPLER	256	113	369
BILATERAL LIMBS VENOUS DOPPLER	21	19	40
CAROTID DOPPLER	420	224	644
RENAL DOPPLER	252	126	378
XRAY	15695	14418	30133
CT SCAN	2600	2433	5033
MRI	501	302	803

PEDIATRIC CARDIOLOGY SERVICE

Dr Sadikshya Pandey, Dr. Ranjana Bista, Dr. Purnima Shakya, Dr. Anmol Sharma, Dr. Prayutsu Pokhrel

INTRODUCTION

The Department of Pediatric Cardiology at Shahid Gangalal National Heart Centre (SGNHC) is a leading tertiary referral center dedicated to the care of children with cardiovascular diseases in Nepal. As one of the nation's largest and most reputed cardiac institutions, the department provides comprehensive, high-quality medical care to pediatric patients with a wide spectrum of congenital and acquired heart diseases.

With a steadily increasing patient volume each year, the department has gained national recognition for its expertise in managing complex pediatric cardiac conditions through advanced diagnostic modalities, evidence-based therapeutic interventions, and structured long-term follow-up care. The department remains committed to improving outcomes through early diagnosis, multidisciplinary collaboration, and continuous service expansion.

SERVICES PROVIDED

Pediatric Cardiology services at SGNHC have been operational since 2004, with progressive expansion to meet the growing and evolving needs of the pediatric population. The department currently provides a comprehensive range of services, including:

- Outpatient pediatric cardiology clinics
- 24-hour emergency pediatric cardiac services
- Inpatient and critical care services
- Diagnostic and therapeutic cardiac catheterization
- Advanced cardiac imaging (echocardiography, CT, MRI)
- Fetal cardiology services
- Preventive pediatric cardiology

To further enhance specialized care, the department plans to initiate additional subspecialty clinics in the coming year, including:

- Adult Congenital Heart Disease Clinic
- Heart Failure Clinic
- Electrophysiology Clinic

A dedicated pediatric ward was established in 2019, initially with 10 beds and currently expanded to a 14-bed capacity. The ward is supported by round-the-clock in-house medical officers and a highly trained nursing team.

The department also provides comprehensive post-operative management for pediatric cardiac surgical patients within the Pediatric Surgical Intensive Care Unit (PSICU). Care is delivered through a coordinated multidisciplinary model involving pediatric cardiology, cardiothoracic surgery, anesthesia, and allied specialties, ensuring continuity of care throughout the perioperative period.

PEDIATRIC SERVICE AT INPATIENT DEPARTMENT

During the year 2025, a total of 747 pediatric patients were admitted under the Pediatric Cardiology service. The majority of admissions required catheter-based therapeutic interventions, reflecting the increasing demand for advanced interventional pediatric cardiac care.

The diagnostic distribution of admitted patients is summarized below:

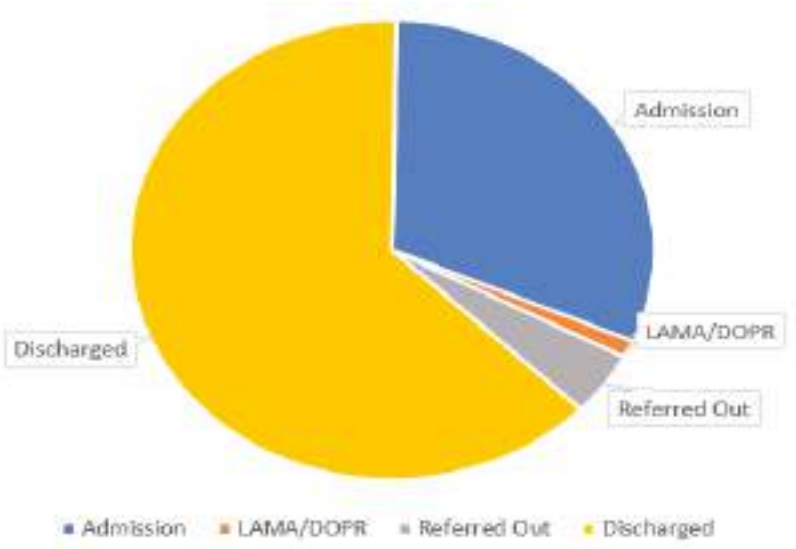
DIAGNOSIS	TOTAL NUMBER OF PATIENT
Rheumatic Heart Disease	32
Heart Failure	45
Catheter Based Interventions	286
Cyanotic Heart Disease	92
Acyanotic Heart Disease	134
Cardiac CT	75
Cardiac MRI	4
Arrhythmia	26
Infective Endocarditis	14
Pericardial Effusion/Pericardiocentesis	12
Miscellaneous	27
Total	747

PEDIATRIC SERVICE AT EMERGENCY DEPARTMENT

The Pediatric Cardiology Department provides 24-hour emergency services for children with cardiac conditions. In 2025, a total of 647 pediatric patients were evaluated in the Emergency Department.

Among these, 202 patients required urgent admission for critical cardiac conditions, while the remaining patients were managed through outpatient follow-up. The most common diagnoses among admitted patients included rheumatic heart disease, congenital and structural heart diseases, and arrhythmias.

Non-cardiac cases, after appropriate evaluation and stabilization, were promptly referred to general pediatric services, ensuring timely and appropriate care for all patients.



DIAGNOSTIC IMAGING SERVICES IN PEDIATRIC CARDIOLOGY

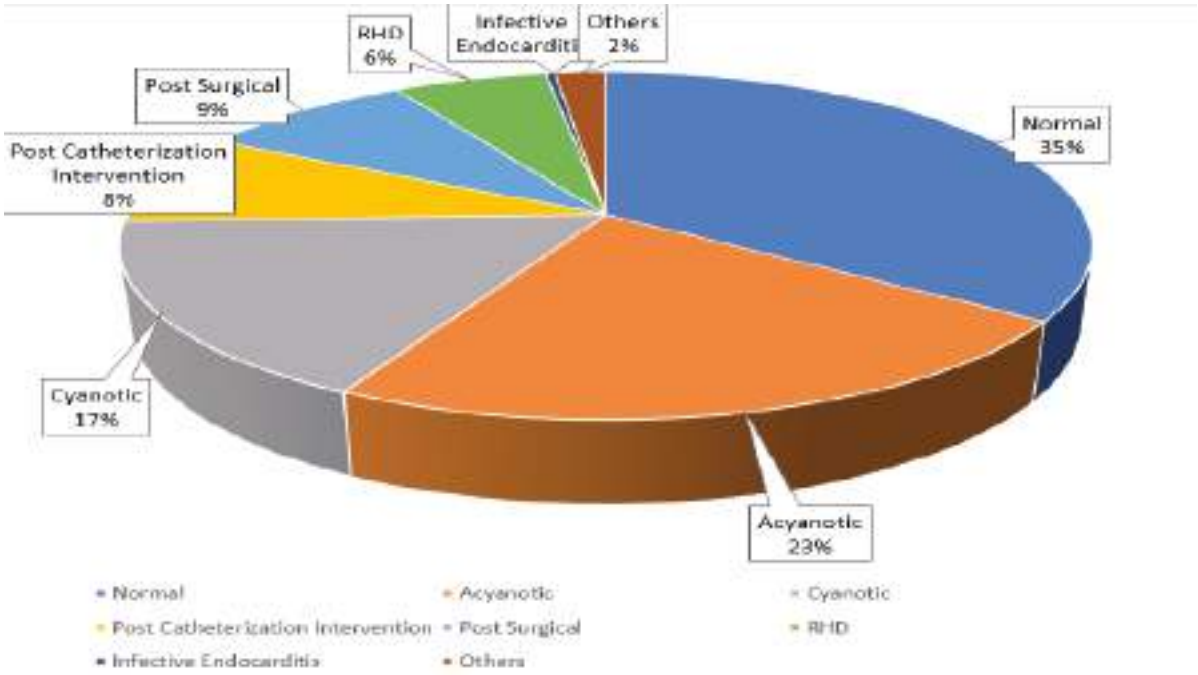
PEDIATRIC ECHOCARDIOGRAPHY

A total of 11,588 pediatric echocardiographic examinations were performed during the reporting year. The patient cohort consisted of 55.8% males and 44.2% females, with abnormal findings detected in 65.3% of cases.

Echocardiographic Diagnosis Distribution:

Acyanotic CHD: 35.0%
Cyanotic CHD: 25.7%
Rheumatic Heart Disease: 9.3%
Post-catheterization cases: 13.0%
Post-surgical cases: 13.2%
Infective Endocarditis: 0.5%
Miscellaneous: 3.08%

Pediatric echocardiography continues to play a critical role in early diagnosis and timely management, significantly improving clinical outcomes and long-term prognosis.



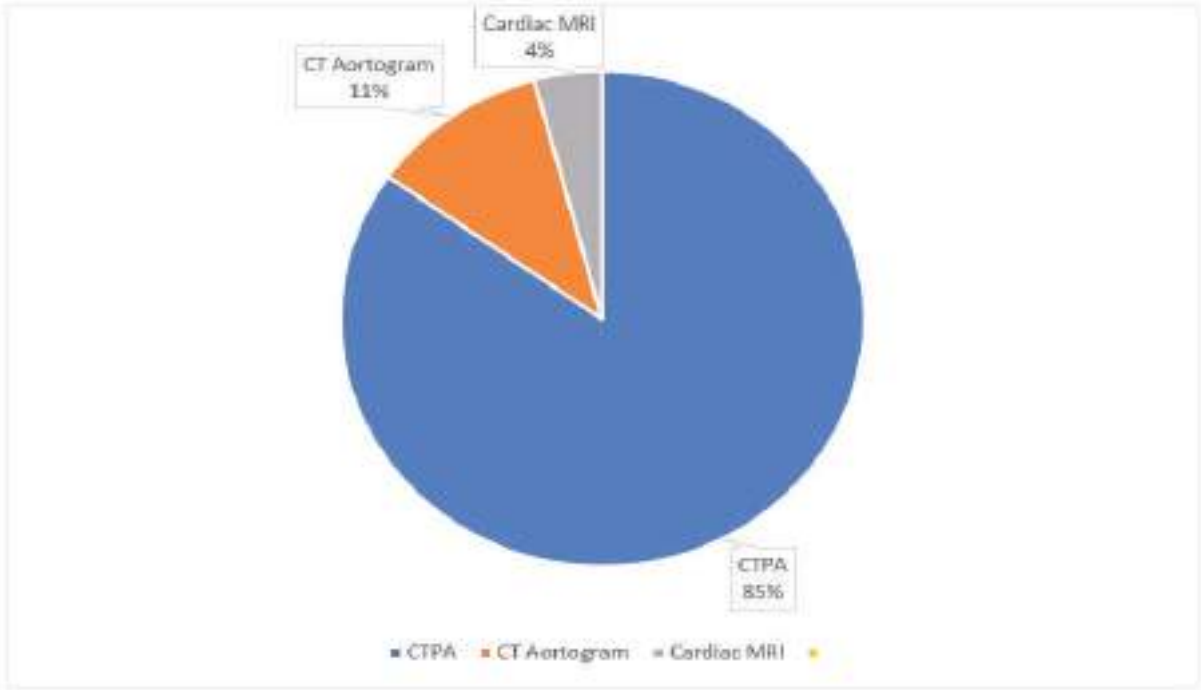
FETAL ECHOCARDIOGRAPHY

The department continues to play a pivotal role in antenatal cardiac diagnosis through fetal echocardiography. The service is available on all working days and has shown a consistent increase in utilization.

In 2025, a total of 1,576 pregnant women underwent fetal echocardiography. Early detection through fetal cardiac imaging has significantly improved perinatal counseling, delivery planning, and neonatal outcomes for infants with congenital heart disease.

CARDIAC CT AND MRI IN CONGENITAL HEART DISEASE

Cardiac CT and MRI have become essential adjuncts to echocardiography and cardiac catheterization, particularly in patients with complex pulmonary artery and pulmonary vein anomalies.



In 2025:

572 pediatric cardiac CT scans were performed

CT Pulmonary Angiography (CTPA): 506

CT Aortography: 66

25 pediatric cardiac MRI studies were conducted

PEDIATRIC MEDICAL INTENSIVE CARE UNIT(PMICU)

The six-bedded PMICU at SGNHC provides comprehensive intensive care for critically ill pediatric cardiac patients. The unit is staffed with continuous pediatric medical coverage and trained nursing personnel and is equipped with advanced monitoring and life-support systems. The PMICU manages complex conditions such as heart failure, cyanotic congenital heart disease, arrhythmias, and other life-threatening cardiac complications, utilizing both invasive and non-invasive respiratory support. A multidisciplinary care model ensures timely interventions and improved survival outcomes.

HUMAN RESOURCES, TRAINING AND FUTURE ACADEMIC TARGETS

The Pediatric Cardiology Service at Shahid Gangalal National Heart Centre has significantly Since its inception in 2004, the Pediatric Cardiology Service has grown into a structured team

comprising:

1 Senior Consultant Pediatric Cardiologist
1 Consultant Pediatric Cardiologist
2 Pediatric Cardiologists
5 Registrars
3 Resident Doctors

The department is proud to have a pediatric cardiologist formally trained in advanced pediatric cardiac imaging (CT and MRI), marking a significant milestone in national capacity building. The department actively contributes to postgraduate education, providing training in pediatric cardiology and echocardiography. Trainees from NAMS, PAHS, KIST Medical College, Nepal Army Institute of Health Sciences, Lumbini Medical College, and Manipal Teaching Hospital have completed elective rotations. Plans are underway to establish a structured fellowship program in pediatric cardiology.

CONCLUSION

The Pediatric Cardiology Service at Shahid Gangalal National Heart Centre demonstrated substantial growth and clinical activity in 2025. Through comprehensive emergency, inpatient, intensive care, diagnostic, and preventive services, the department provided specialized care to a large pediatric cardiac population.

Despite resource limitations, the multidisciplinary team maintained high standards of clinical excellence while contributing significantly to national training and capacity building. Moving forward, the department remains committed to expanding services, strengthening academic programs, and adopting advanced technologies to further improve outcomes and quality of life for children with heart disease.

ACUTE CORONARY SYNDROME IN CCU

Cardiology Unit IV

INTRODUCTION

Acute Coronary Syndrome (ACS) continues to be one of the most frequent and critical reasons for admission to the Coronary Care Unit (CCU). It encompasses a spectrum of conditions caused by acute myocardial ischemia, including ST-Elevation Myocardial Infarction (STEMI), Non-STElevation Myocardial Infarction (NSTEMI), and Unstable Angina. Prompt recognition and early intervention are essential to reduce complications, mortality, and long-term disability associated with ACS.

This section of the annual report presents an overview of the clinical profile, management practices, and care delivery processes for ACS patients admitted to the CCU during the reporting year. The analysis is based on data obtained from CCU admission logs and hospital records and reflects the collaborative efforts of the cardiology team to provide timely, guideline-directed, and patient-centered care.

SERVICES AND CLINICAL MANAGEMENT

The Coronary Care Unit is a specialized, high-dependency unit dedicated to the management of patients with acute and high-risk cardiac conditions. The unit is equipped with advanced cardiac monitoring systems, central oxygen supply, defibrillators, mechanical ventilators, portable echocardiography, and emergency imaging facilities to ensure comprehensive care for critically ill patients.

A multidisciplinary team comprising cardiologists, medical officers, senior residents, trained nursing staff, anesthesiologists, and intensivists provides continuous 24-hour care within the CCU. Patients presenting with suspected ACS undergo rapid clinical assessment, including immediate electrocardiography and laboratory evaluation, enabling early risk stratification and initiation of appropriate therapy.

MANAGEMENT OF ACUTE CORONARY SYNDROME

Patients diagnosed with STEMI are managed using standardized reperfusion protocols, with Primary Percutaneous Coronary Intervention (PCI) being the preferred strategy whenever

feasible. Timely decision-making is guided by the duration of symptoms, hemodynamic stability, and availability of interventional facilities. Patients presenting within the recommended time window are prioritized for primary PCI to achieve early myocardial reperfusion.
NSTEMI and high-risk Unstable Angina patients are admitted to the CCU for close hemodynamic monitoring, optimization of medical therapy, and early invasive evaluation where indicated. Patients with low-risk Unstable Angina are managed according to clinical stability and bed availability, ensuring judicious utilization of CCU resources while maintaining high standards of care.

TEAM-BASED CARE AND SUPPORT SERVICES

The smooth functioning of the CCU is supported by round-the-clock availability of trained nursing staff and on-call support from anesthesiology and critical care teams. Regular bedside evaluations, multidisciplinary discussions, and adherence to evidence-based treatment protocols ensure consistent and high-quality patient care.
Special consideration is given to patients facing financial constraints, with support provided through institutional assistance programs and available governmental or charitable funding mechanisms to facilitate access to essential life-saving interventions.

SUMMARY

Acute Coronary Syndrome remains a major contributor to CCU admissions, demanding rapid diagnosis, timely intervention, and coordinated multidisciplinary care. Continued refinement of treatment protocols, strengthening of interventional services, and systematic review of clinical outcomes are essential to further improve patient survival and reduce the burden of cardiovascular disease.

DEMOGRAPHIC FEATURES

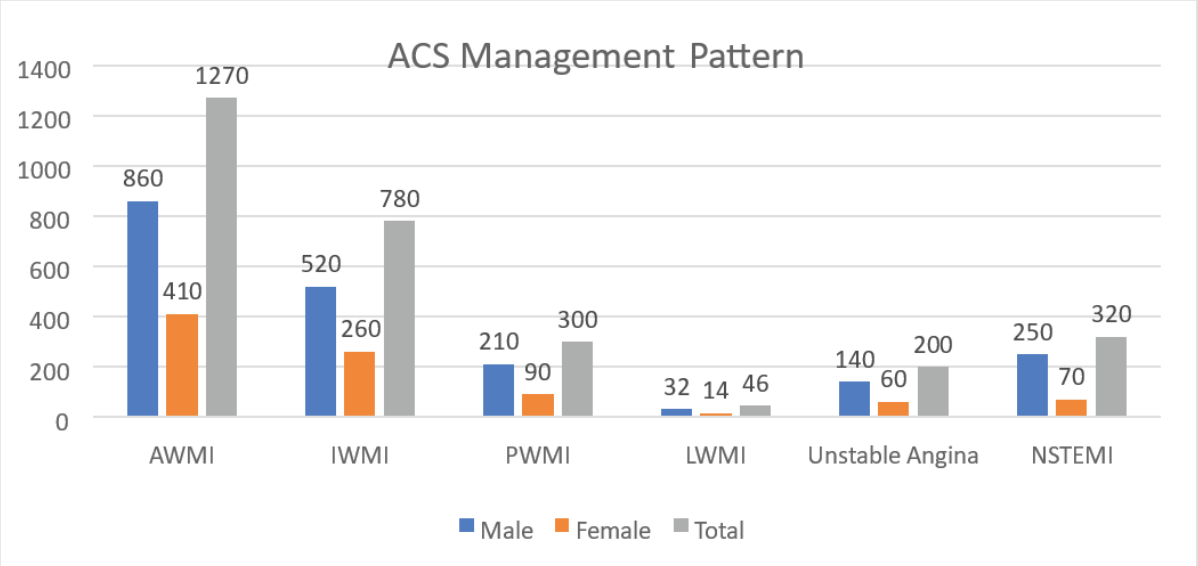
In this year 2025, total 2916 patients got admitted in ccu with diagnosis of ACS. Among which 2396 (82.1%) were STEMI , 310 (10.6%) were NSTEMI and 200 (6.8%) were of Unstable Angina. ACS showed male predominance with total of 2012 (69%) patients whereas 904 (31%) were female.

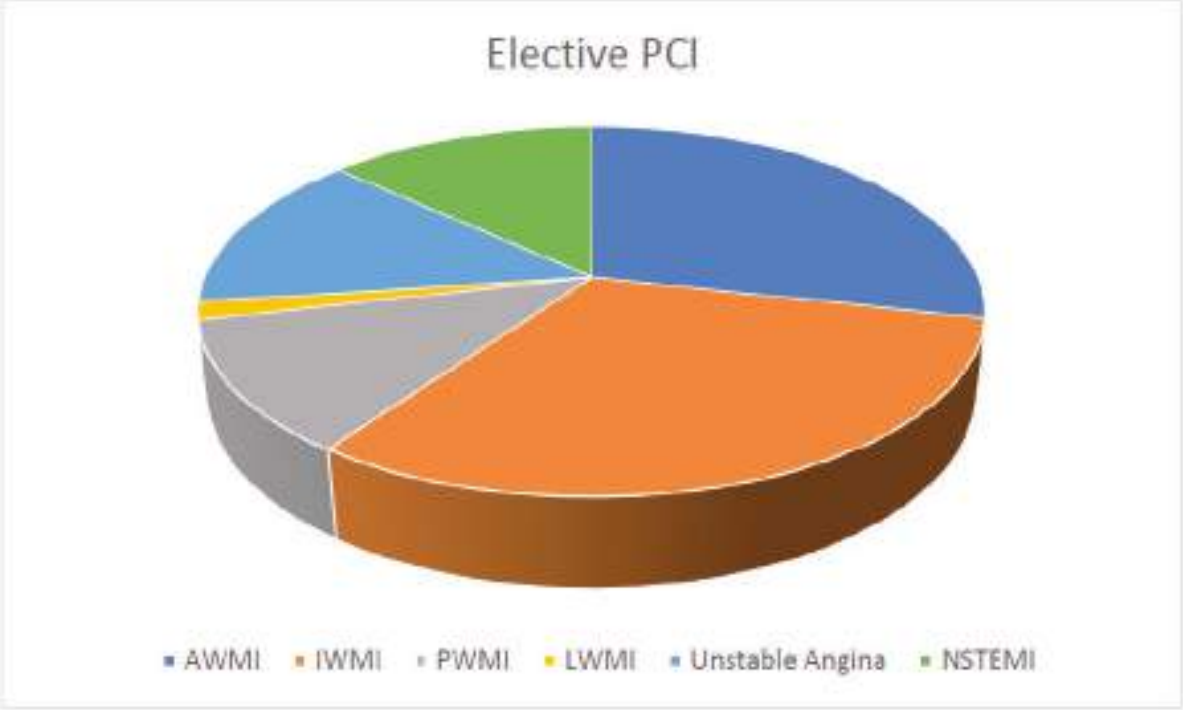
DEMOGRAPHIC FEATURES

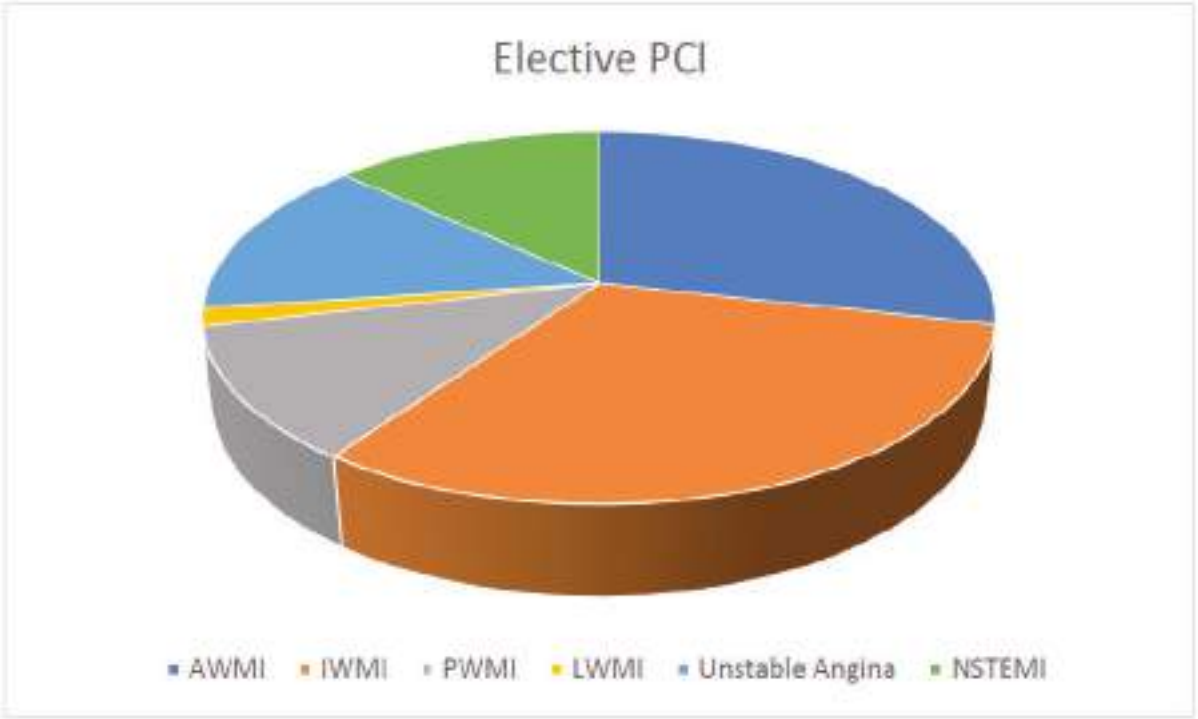
Among 2396 STEMI cases admitted in CCU 982 (35%) underwent PPCI similar to the previous year (34.09%). 1823 patients (64%) of all ACS patients underwent elective PCI.

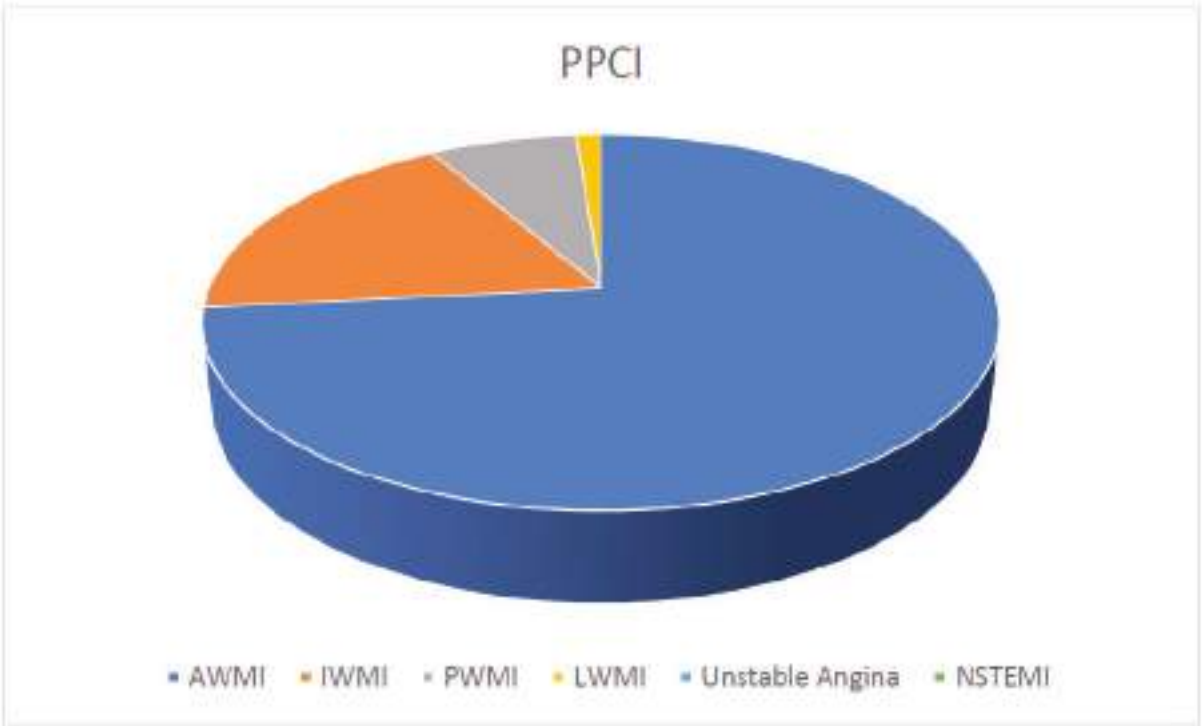
ACS	MALE	FEMALE	TOTAL
STEMI	1622	774	2396
NSTEMI	250	70	320
UNSTABLE ANGINA	140	60	200
TOTAL	2012	904	2916

ACS	MALE	FEMALE	TOTAL	PPCI	ELECTIVE PCI
AWMI	860	410	1270	720	530
IWMI	520	260	780	180	580
PWMI	210	90	300	70	220
LWMI	32	14	46	12	28
UNSTABLE ANGINA	140	60	200	0	185
NSTEMI	250	70	320	0	280
TOTAL	2012	904	2916	982	1823






Elective PCI
AWMI
IWMI
PWMI
LWMI
Unstable Angina
NSTEMI


PPCI
AWMI
IWMI
PWMI
LWMI
Unstable Angina
NSTEMI

INTERVENTIONAL CARDIOLOGY SERVICES

Cardiology Unit III

INTRODUCTION

Cardiovascular diseases have emerged as a significant public health challenge, with a rising prevalence and alarmingly high mortality rates across the globe. In response to this growing crisis, the Shahid Gangalal National Heart Center was founded to offer a comprehensive range of services for the diagnosis and treatment of heart conditions. As the leading institution in the country, the center is responsible for the majority of both invasive and minimally invasive cardiac interventions.

The Interventional Cardiology Department at the center has played a pivotal role in improving patient outcomes and advancing the treatment of cardiovascular diseases since its establishment in 2001 AD. To address the increasing demand for specialized care, the center is equipped with four fully operational cardiac catheterization labs, which provide an array of diagnostic and life-saving procedures. These labs are outfitted with cutting-edge technologies, including Intracoronary Ultrasound (IVUS), Fractional Flow Reserve (FFR), and Rotablator, all of which contribute to the enhanced precision and success of interventions.

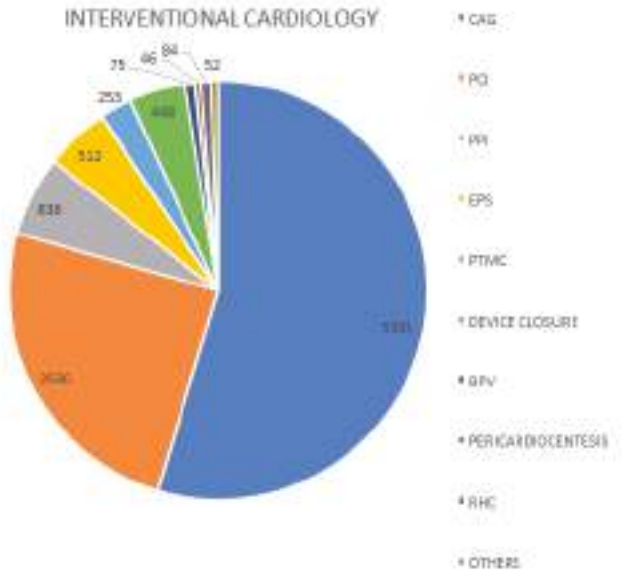
The catheterization team at Shahid Gangalal is a highly skilled and experienced group of professionals, proficient in performing a wide variety of procedures such as emergency coronary interventions (PPCI), balloon pulmonary valvuloplasty (BPV), balloon aortic valvuloplasty (BAV), percutaneous transvenous mitral commissurotomy (PTMC), pacemaker insertions, electrophysiological studies, radiofrequency ablations, and structural interventions like device closures for atrial septal defect (ASD), patent ductus arteriosus (PDA), and ventricular septal defect (VSD).

In addition, the center offers the innovative and life-altering Transcatheter Aortic Valve Implantation (TAVI) procedure for patients suffering from aortic stenosis. This groundbreaking treatment, facilitated by a team of expert interventional cardiologists and cardiovascular surgeons, is a testament to the center's commitment to adopting the most advanced medical technologies. With a proven track record of successful outcomes, Shahid Gangalal National Heart Center continues to provide its patients with the highest standard of care.

In summary, the Shahid Gangalal National Heart Center is a cornerstone of cardiovascular health in Nepal, dedicated to offering unparalleled diagnostic, therapeutic, and interventional services, ensuring that every patient receives exceptional, compassionate care.

PROCEDURES	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	TOTAL
CAG	481	463	476	339	503	530	546	494	407	350	490	512	5591
PCI	229	196	214	226	171	242	231	242	229	168	192	190	2530
PPI	39	50	54	48	68	47	75	63	55	32	50	55	636
TPI	12	18	29	51	34	59	41	51	50	38	37	35	455
EPS	50	28	61	46	57	26	43	36	27	35	59	44	512
PTMC	28	38	27	23	13	5	9	36	14	4	26	30	253
ASD	33	31	33	34	21	22	36	37	20	13	22	26	328
VSD	0	1	1	1	0	2	1	1	5	1	0	1	14
PDA	14	1	9	14	0	13	12	17	12	2	11	1	106
BPV	1	12	4	4	7	9	6	6	5	6	6	9	75
PAG	0	1	0	0	0	0	0	0	0	0	0	0	1
PERICARDIOCEN-TESIS	3	2	3	1	4	5	6	5	1	3	7	6	46
RHC	5	4	11	7	16	9	6	5	5	5	7	4	84
IVUS	0	1	0	0	0	0	0	3	4	2	9	2	21
TAVI	0	0	1	0	0	1	1	0	1	1	0	2	7
MAPCA COILING	0	0	2	0	0	0	0	0	0	0	0	0	2
BAS	0	0	1	0	0	0	2	0	0	0	0	0	3
IABP	0	0	1	0	0	0	0	0	0	0	0	0	1
IVL	0	0	1	0	0	0	0	0	0	0	0	0	1
COA	0	0	1	0	1	0	0	0	0	0	0	0	2
ROTA	0	0	0	0	0	0	0	1	0	1	1	2	5
PFO	0	0	0	0	0	0	0	1	0	0	0	0	1
LPV	0	0	0	0	0	0	0	0	0	5	0	0	5
OCT	0	0	0	0	0	0	0	0	0	0	0	2	2
ROSOV	0	0	0	0	0	0	0	0	0	0	1	0	1
TOTAL	895	846	929	794	895	970	1015	998	835	666	918	921	10682

Month-wise demonstration of cardiac intervention



CARDIAC ELECTROPHYSIOLOGY AND DEVICE IMPLANTATION

Cardiology Unit I

INTRODUCTION

An Electrophysiology Study (EPS) is a test to map the heart's electrical system and pinpoint the cause of irregular heartbeats (arrhythmias). Radiofrequency Ablation (RFA) is a treatment that corrects these rhythms by carefully neutralizing the tiny heart tissue area responsible for the problem. These procedures are now standard care for heart rhythm disorders. Shahid Gangalal National Heart Centre, Nepal's leading heart hospital, has provided this essential service since 2004 through our dedicated Electrophysiology division. Thanks to our committed team, this service has grown drastically. The introduction of advanced tools like 3D mapping now allows us to successfully treat even the most complex rhythm issues within Nepal. Our division also specializes in implanting cardiac devices. We routinely implant permanent pacemakers(PPM) to manage slow heart rhythms. Our expertise has expanded to include advanced devices: Implantable Defibrillators (AICDs) to prevent sudden cardiac arrest in high-risk patients, and Cardiac Resynchronization Therapy (CRT) for carefully chosen heart failure patients. These CRT devices help the heart pump more effectively, relieve symptoms, and significantly improve patients' quality of life.

Our Electrophysiology (EPS) unit has become a real pillar of excellence within the cardiology department, consistently delivering high-quality, patient-centered care. The team's commitment to accurate diagnosis and timely treatment of heart rhythm disorders has made a meaningful difference in patient outcomes, helping individuals return to their daily lives with greater confidence and improved quality of life. Patients benefit from a thoughtful, individualized approach where clinical expertise is paired with clear communication and compassion.

The success of the EPS unit is driven by strong collaboration—between electrophysiologists, cardiologists, nurses, technologists, and support staff—who work seamlessly across the continuum of care. From initial consultation to advanced procedures and long-term follow-

up, the unit emphasizes safety, efficiency, and continuity. This coordinated model ensures that patients feel supported at every step, reducing anxiety and building trust in the care they receive.

SERVICE PROVIDED

EPS and RFA are performed regularly, twice a week (Tuesday and Friday). However, device implantation is performed regularly almost all the working days. A total of 451 patients underwent EPS+RFA in 2025. EPS+RFA was done by conventional 2D method in 426 patients and by 3D mapping in 25 patients. 634 Device implantation were done in 2025 of which 31 were AlCDs, 5 were CRT and remaining were pacemaker implantation (single/dual) including generator replacement and lead adjustment. There were significant amount of increase in patient with new implantation of dual chamber this year in 166 patients. There were new heights achieved with conduction system pacing which was initiated with 11 patients going through this procedure. With the capable electrophysiologists in our hospital, not only we are able to do more cases but also with higher success rate. EPS in 3D mapping reached new heights with about 25 patients getting treated with it. Newer techniques and expertise have helped a lot in achieving this milestone. Not to forget, cardiology residents posted in the unit are also benefited by the unparallel exposure to device implantation and EPS/ RFA procedures.

Device Implantation Summary		
Single chamber pacemaker (VVIR)	New Implantation	336
	Generator replacement	56
Dual chamber pacemaker (DDDR)	New Implantation	166
	Generator replacement	21
Automated Implantable Cardioverter Defibrillator (AICD)	New Implantation	31
	Generator replacement	6
Cardiac Resynchronization therapy (CRT)	CRT-D Implantation	1
	CRT-P Implantation	4
	CRT-D Generator replacement	1
	CRT-P Generator replacement	1
Conduction System Pacing (CSP-D)	New Implantation	11
Total		635

EPS+RFA by conventional 2D method			
AVNRT	Typical		178
	Atypical		2
AVRT	Left sided pathway	WPW	67
		Concealed pathway	43
	Right sided pathway	WPW	66
		Concealed pathway	10
	Dual pathway		6
	Parahisian		9
	Septal		4
Non Inducible Tachycardia(EPS only)			35
Relapsed cases			6
Total			426

EPS+RFA by 3D mapping	
RVOT PVCS	11
LVOT PVCS	1
FASCICULAR VT	2
PARAHISIAN	1
RIGHT POSTEROSEPTAL	2
ATRIAL FLUTTER	2
ATRIAL TACHYCARDIA	4
AVNRT (CLOSE TO AV)	2
TOTAL	25

EMERGENCY SERVICES

Cardiology Unit V

INTRODUCTION

The Emergency Department at Shahid Gangalal National Heart Center (SGNHC) is dedicated to providing 24-hour, high-quality care for patients in need of urgent medical attention. As a specialized unit for cardiac emergencies, it is equipped with the latest technology, highly trained medical professionals, and cutting-edge services designed to handle complex and critical heart-related conditions. The department excels in its systematic approach, offering efficient triage, rapid diagnosis, and evidence-based treatment protocols that ensure the best outcomes for patients. SGNHC's Emergency Department is widely recognized for its tremendous commitment to delivering timely, compassionate, and expert care throughout the entire country. Our unwavering focus on patient-centered care and rapid intervention has made the center a trusted leader in the management of cardiac emergencies conditions.

SERVICE PROVIDED

The Cath Lab is equipped to perform critical diagnostic and therapeutic interventions, such as angiography, angioplasty, and stent placement, ensuring immediate action during acute cardiac events. In line with international guidelines, SGNHC's Emergency Department is proficient in performing Primary Percutaneous Coronary Intervention (PCI) for patients experiencing acute myocardial infarctions (heart attacks). This procedure is carried out without delay, aiming to restore blood flow to the heart and minimize cardiac damage. The department also handles a wide range of other cardiac emergencies, including arrhythmias, heart failure, and other life-threatening conditions. Our team's expertise, combined with advanced technology, enables SGNHC's Emergency Department to provide exceptional care during critical moments. Whether treating a heart attack or other acute cardiac issues, we are committed to offering the highest level of care to patients in need, 24 hours a day, seven days a week. On the other hand, those patients presenting with non-cardiac emergencies like upper GI bleed, cerebrovascular accident, metabolic emergencies, etc. are managed acutely and then referred to respective centers for specialist care

	Total Number	Percentage
Male	13438	56.07
Female	10525	43.92
Admissions	6649	27.75
Discharge	16393	68.41
Referrals	566	2.36
DOPR/LAMA	276	1.15
Mortalities	55	0.23
Brought dead cases	24	0.1
Absconded	0	0

Diseases	Total number	Percentage (%)
Coronary artery diseases	5279	22.03
Hypertension	3615	15.1
Valvular heart diseases	3195	13.33
Cardiomyopathies	1989	8.3
Arrhythmias	2229	9.3
Congenital heart diseases	360	1.5
Pericardial diseases	168	0.7
Infective endocarditis	120	0.5
Non cardiac chest pain	3140	13.1
Respiratory illnesses	1126	4.7
Cerebrovascular diseases	95	0.4
Aortic diseases	48	0.2
Others	2600	10.9

MEDICAL WARD

Cardiology Unit II

INTRODUCTION

With the rising number of patients at Shahid Gangalal National Heart Centre, the medical ward has been steadily expanding. Patients are admitted to the ward through various means, including direct admissions from the OPD, Emergency Department, pre- and post-cath procedures, surgical referrals, and step-downs from the CCU. The ward is consistently upgraded to ensure the highest quality care for those in need. It operates under round-the-clock supervision by dedicated unit doctors, resident doctors, registrar cardiologists, nursing staff, and attendants. Currently, the medical ward has a total of 110 beds with 18 in General Ward A, 16 in General Ward B, 18 in General Ward C, 23 in Pre-Cath, 14 in Post-Cath, 11 in Double Cabin, and 10 in Single Cabin.

DISEASE DISTRIBUTION

For analysis, the patients admitted to medical wards were categorized into Coronary Artery Disease Rheumatic Heart Diseases, Valvular Heart Disease, Dilated Cardiomyopathy, Congenital Heart Diseases, Arrhythmias, Pericardial Effusion, Infective Endocarditis, Complete Heart Block, Heart failure other than dilated cardiomyopathy and others. Gender wise Disease prevalence among patients admitted to medical wards in the year 2025 is shown in the following table.

Disease-wise distribution in medical ward in 2025					
S. No.	Name of Diseases	No. of cases			% of Total
		Male	Female	Total	
1.	CAD	3010	1892	4902	47 .41 %
2.	RHD	602	512	1114	10.77%
3.	ARRYTHMIA	482	293	775	7.49%
4.	DCM	602	416	1018	9.84%
5.	VHD	311	268	579	5.56%
6.	CHD	171	163	334	3.29%
7.	PERICARDIAL DISEASE	97	69	166	1.63%
8.	IE	79	41	120	1.16%
9.	CHB	223	176	399	3.85%
10.	HEART FAILURE OTHER THAN DCM	316	280	596	76%
11.	OTHERS	212	124	336	3.24%
Total		TOTAL	6105	4234	10339

CONCLUSION

In 2025, coronary artery disease was the most common condition among patients admitted to the cardiology medical wards, making up 47.41% of all cases. It was followed by rheumatic heart disease, which accounted for 10.77%, and dilated cardiomyopathy at 9.84%

MORTALITY 2025 IN DEPARTMENT OF CARDIOLOGY

Cardiology Unit VI

INTRODUCTION

Cardiovascular diseases remain the leading cause of mortality and morbidity worldwide. Nepal, being a lower-middle-income country, is facing a growing burden of cardiovascular diseases due to increasing prevalence of diabetes, hypertension, obesity, dyslipidemia, smoking, physical inactivity, and increased life expectancy. Shahid Gangalal National Heart Centre (SGNHC) is the national referral centre for cardiovascular diseases; therefore, the number of cardiovascular cases and related mortality are higher compared to other hospitals. This annual mortality data for the year 2025 provides insight into service quality and highlights areas for improvement.

RESULTS

In the year 2025, a total of 8709 patients were admitted under the Department of Cardiology. A total of 288 deaths were recorded. The maximum number of deaths occurred in the coronary care units (CCU), reflecting the severity of cases admitted in these wards.

Table 1: Ward-wise Admission and Mortality (2025)

Ward	Male Admissions	Female Admissions	Total Admissions	Male Mortality	Female Mortality	Total Mortality
CCU-I	394	230	624	86	65	151
CCU-II	151	96	247	25	36	61
CCU-III	179	110	289	41	26	67
Pre-Cath	1742	1118	2860	3	1	4
Post-Cath	481	315	796	1	1	2
Single Cabin	522	356	878	0	0	0
Double Cabin	197	154	351	0	0	0
GWA	906	588	1494	1	2	3
GWB	693	477	1170	0	0	0
TOTAL	5265	3444	8709	157	131	288

STATISTICAL DISTRIBUTION

Figure 1: Sex-wise Distribution of Mortality in SGNHC (2025)

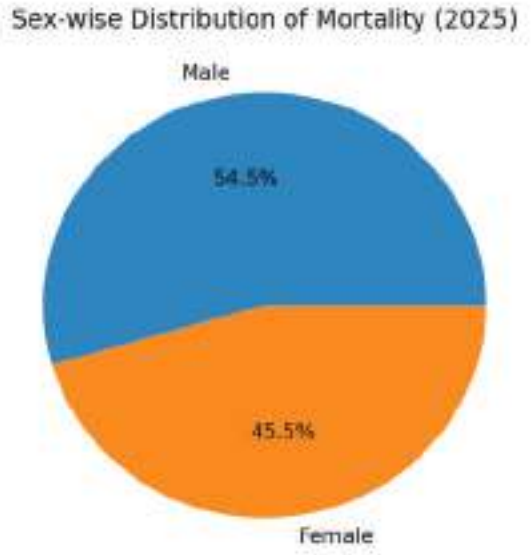
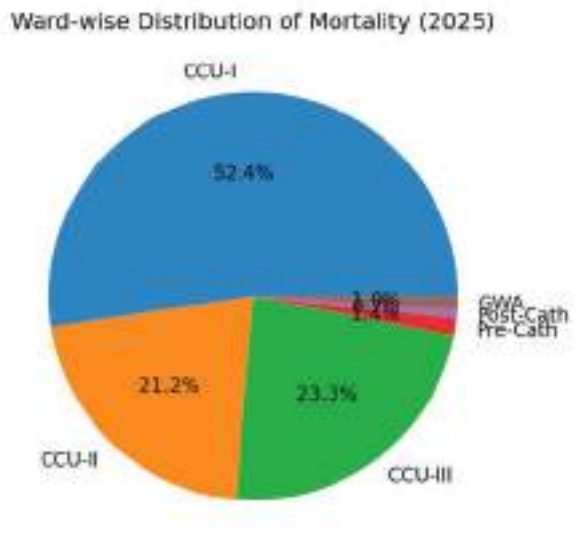


Figure 2: Ward-wise Distribution of Mortality in SGNHC (2025)

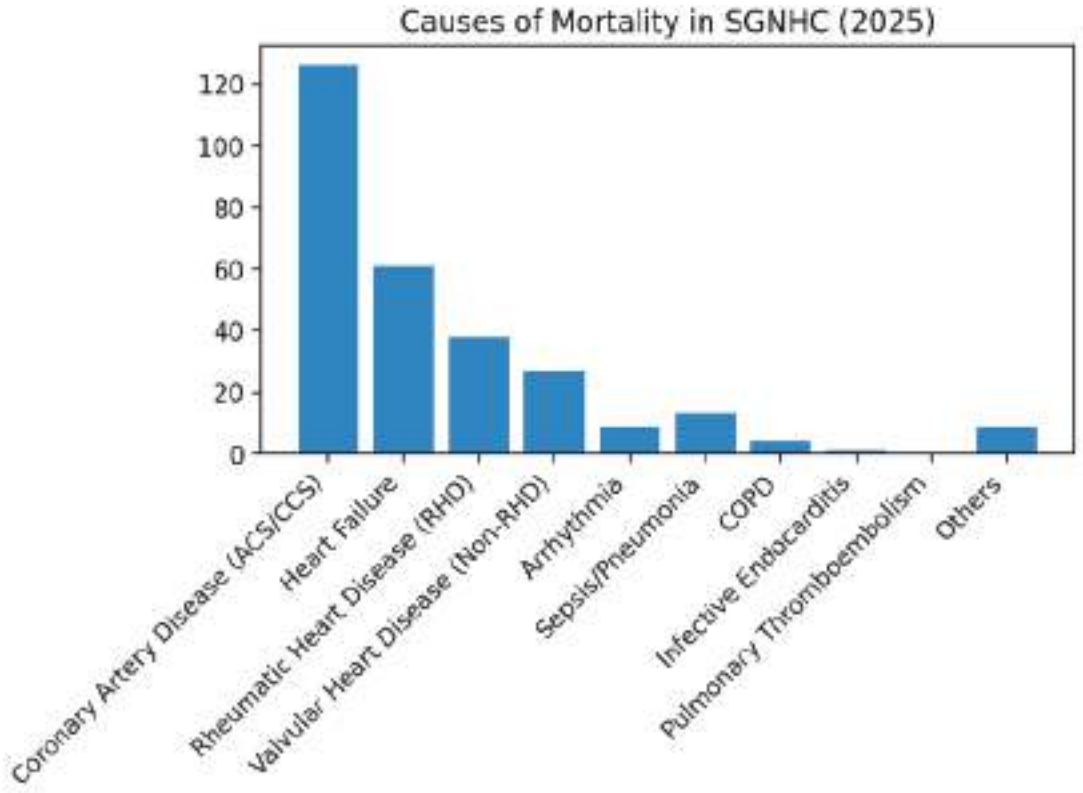


CAUSES OF MORTALITY

Table 2: Causes of Mortality in SGNHC in the year 2025

S.N.	Diagnosis	Numbers	Mortality %
1	Coronary Artery Disease (ACS/CCS)	126	43.8
2	Heart Failure	61	21.2
3	Rheumatic Heart Disease (RHD)	38	13.2
4	Valvular Heart Disease (Non-RHD)	27	9.4
5	Arrhythmia	9	3.1
6	Sepsis/Pneumonia	13	4.5
7	COPD	4	1.4
8	Infective Endocarditis	1	0.3
9	Pulmonary Thromboembolism	0	0.0
10	Others	9	3.1
	Total	288	100

Figure 3: Bar Diagram of Causes of Mortality in SGNHC (2025)



CONCLUSION

The annual mortality of 2025 in SGNHC demonstrates that the highest mortality occurred in critical care units, particularly CCU wards. Mortality was higher among males compared to females. Coronary artery disease remained the leading cause of death followed by heart failure. These findings highlight the need for continued strengthening of critical care services and early intervention strategies to reduce cardiovascular mortality.

CRITICAL CARE UNIT (NON CORONARY)

Cardiology Unit IV

OVERVIEW AND INTRODUCTION

The Critical Care Unit (CCU) plays a vital role in the management of patients with acute and chronic non-ischemic cardiac conditions requiring intensive monitoring and advanced supportive care. The unit primarily caters to patients with complex cardiac illnesses such as cardiomyopathies, valvular heart diseases, arrhythmias, heart blocks, and multisystem conditions with significant cardiovascular involvement.

Operating with a total capacity of 40 beds, this year total of 4566 were admitted in critical care unit . Out of which 1650 were non coronary . The CCU functions round-the-clock, delivering comprehensive critical care services through a multidisciplinary team approach. The unit continues to contribute significantly to the institution's mission of providing timely, evidencebased, and patient-centered cardiac care.

SERVICES AND CLINICAL CARE

The CCU is equipped with continuous cardiac monitoring systems, invasive and non-invasive hemodynamic monitoring, mechanical ventilation facilities, defibrillators, temporary pacing capabilities, central oxygen supply, and bedside diagnostic tools. The unit is staffed 24/7 by trained medical officers, senior residents, cardiologists, intensivists, anesthesiology support, and experienced critical care nursing personnel.

Patients admitted to the unit receive individualized care plans based on clinical severity, underlying cardiac pathology, and associated comorbidities. Management includes advanced pharmacological therapy, ventilatory support, temporary pacing, inotropic support, and

multidisciplinary consultations as required. Frequent bedside evaluations and timely escalation of care remain integral components of patient management.

CASE MIX AND DISEASE DISTRIBUTION

During the reporting year, patients admitted to the Non-Coronary CCU represented a broad spectrum of cardiac conditions. Dilated Cardiomyopathy (DCM) constituted the largest proportion of admissions, accounting for 26% of cases, highlighting its continued burden and frequent presentation with acute decompensated heart failure.

Ischemic Cardiomyopathy (ICM) accounted for 17% of admissions, reflecting the overlap between ischemic heart disease and chronic myocardial dysfunction requiring intensive care. Arrhythmias and heart blocks formed a substantial proportion, comprising 21% of admissions, many of whom required close rhythm monitoring, temporary pacing, or urgent pharmacological intervention.

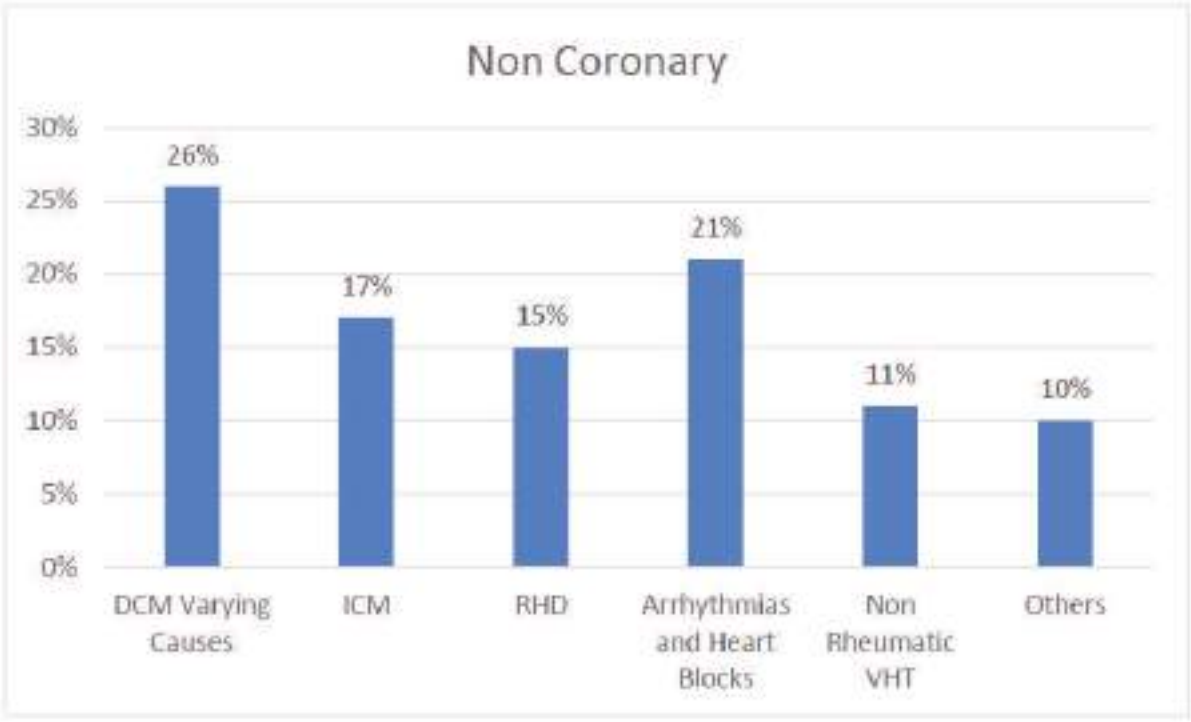
Non-rheumatic valvular heart disease represented 11% of CCU admissions, including patients with acute valvular dysfunction, heart failure, or peri-procedural complications. The remaining 10% of admissions included a heterogeneous group of conditions such as pericardial diseases, pulmonary embolism, adult congenital heart disease, sepsis with cardiac involvement, and other complex medical conditions requiring cardiac critical care.

CLINICAL SIGNIFICANCE

The predominance of cardiomyopathies and rhythm disorders underscores the increasing complexity of non-coronary cardiac illnesses presenting to critical care settings. These conditions often require prolonged monitoring, multidisciplinary decision-making, and resourceintensive management. The CCU continues to adapt to this evolving disease profile by strengthening clinical protocols, optimizing bed utilization, and enhancing coordination between cardiology subspecialties.

CONCLUSION

The Critical Care Unit remains an essential pillar of advanced cardiac care, managing a diverse and increasingly complex patient population. Despite the challenges posed by high patient acuity and resource demands, the unit has consistently delivered high-quality care through structured protocols, skilled manpower, and team-based management. Continued investment in infrastructure, training, and service expansion will further enhance the unit's capacity to meet growing clinical demands and improve patients outcome.


Non Coronary
30%
25%
20%
15%
10%
5%
0%
26%
17%
15%
21%
11%
10%
DCM Varying Causes
ICM
RHD
Arrhythmias and Heart Blocks
Non Rheumatic VHT
Others

PATHOLOGY/CLINICAL LABORATORY SERVICES

Dr Sobita Khadka

INTRODUCTION

Clinical laboratories play a pivotal role in early detection, diagnosis, treatment and follow up of patients. It aids physician in taking decisions and guides them for timely intervention in order to improve patients' health. It helps to have a visionary regarding the status of patient. About 60-70% of medical decisions are based on the laboratory reports.

ABOUT US

Having set priority for precision, accuracy and efficacy, we run quality control for biochemistry and hormonal assay on daily basis, weekly quality control for serology, hematology and special tests. The Laboratory Information system (LIS) module helps to perform all the activities of clinical laboratory, helps to keep track of the sample and maintain complete result history. Currently we are operating as Out Patient Department Lab and Emergency along with In Patient Department Lab. We are using automated blood grouping and antibody screening with intent to increase efficacy, accuracy and shorten the turnover time for cross matching. However, due to certain constraints we are not being able to fully switch to automated blood grouping. We had been operating component separator thereby separating Platelet rich plasma, cryoprecipitate along Packed red cells and fresh frozen plasma.

AT PRESENT, DEPARTMENT OF PATHOLOGY OF SGNHC IS EQUIPPED WITH FOLLOWING

1. Fully automated 5-part hematology analyzer-3
2. Fully automated 3-part hematology analyzer-1
3. Fully automated coagulation analyzer-2
4. Semi-automated coagulation analyzer-1
5. Fully automated Liquid biochemistry analyzer-4
6. CLIA based automated immunoassay analyzer-4
7. Fully automated electrolyte analyzer-4

8. FIA meter for special test-4
9. Automated Blood grouping and Antibody screening machine-1

INVESTIGATIONS AVAILABLE

1. Hematology: Complete Blood count, Erythrocyte Sedimentation Rate, Peripheral Blood Smear Examination, Reticulocyte count.
2. Coagulation Assay: PT, APTT, BT, CT, Fibrinogen Level
3. Blood Bank: Automated Blood Grouping, Antibody screening and Cross matching
4. Biochemistry: Sugar (F), Sugar (PP), Liver Function Test (LFT), Renal Function Test (RFT), Lipid Profile Test, Magnesium, Calcium.
5. Immunology: RA, ASO, CRP, quantitative CRP and Widal test
6. Hormonal Assay: Thyroid Function Test, Vitamin B12 and Vitamin D
7. Serology: HIV, HCV, HBsAg and VDRL
8. Cardiac Enzymes: CPK, CPK-MB and Qualitative and quantitative Troponin I
9. Infectious Pannel: Mantoux test, Rapid test for Dengue, Malaria, Leishmania, Brucella, Leptospira, Scrub typhus, Tuberculosis.
10. Special test: NT pro BNP, Procalcitonin, HsCRP, Urine Microalbumin, HBA1c, Iron Profile, D-dimer, H. Pylori antigen/antibody.

HUMAN RESOURCES

1. Registrar Pathologist: 1
2. Senior Laboratory technologist: 2
3. Laboratory technologist: 2
4. Senior Lab technician: 5
5. Laboratory technician: 18

Department	Male	Female	Total
Bacteriology	1778	1362	3140
Biochemistry	603133	464194	1067327
Blood Bank	20608	12912	33520
Coagulation assay	16850	20340	37190
Hematology	502647	402134	904781
Hormonal assay	64674	63344	128018
Immunology	1401	1463	2864
Infectious Panel	933	664	1657
PBS	483	540	1023
Rectic	64	88	152
Serology	24204	13572	37776
Parasitology	17349	14422	31771
Grand Total	1254124	995035	2249219

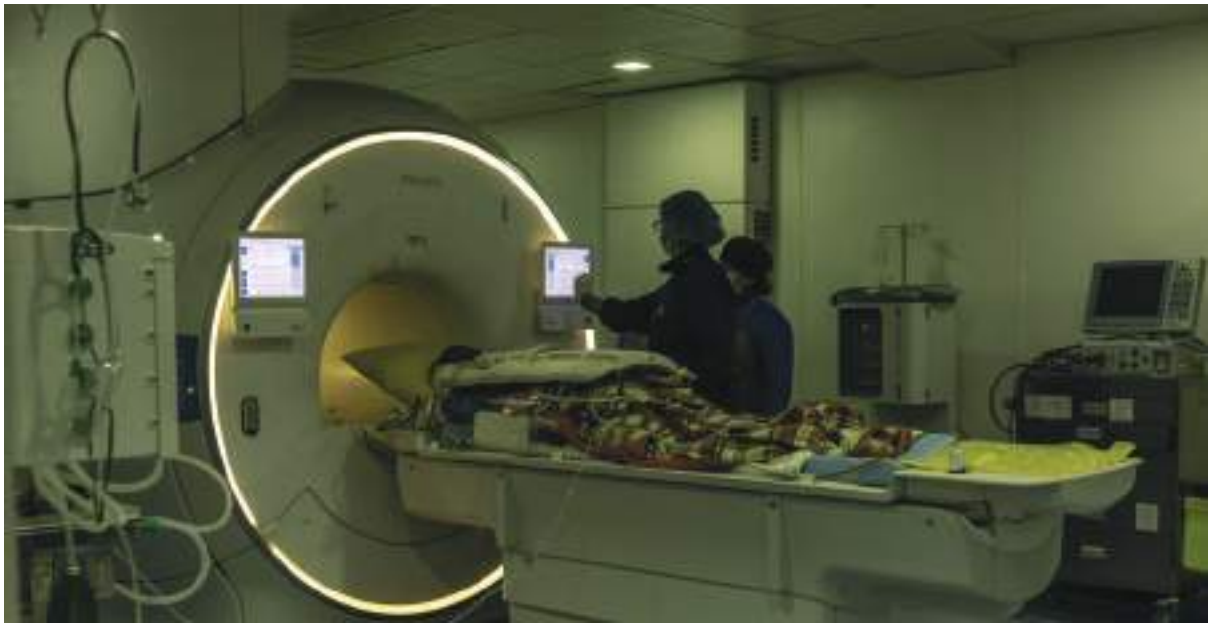
Figure 1: Table of test count of 2025

FUTURE PLAN

We have plans to establish Cytopathology and Histopathology units. We have also planned to start secondary hypertension panel including plasma renin and aldosterone, heparin level, apolipoprotein A, apolipoprotein B, myoglobin and osmolality.

CONCLUSION

The laboratory service in SGNHC is well established and well equipped with the newer technologies and competent technical manpower. With increasing caseloads per year, we have been updating technically, and with limited available human resources, we are delivering timely services with utmost quality, yet we have a lot of scope to grow quantitatively as well as qualitatively.



RADIOLOGY SERVICES

INTRODUCTION

Radiology and imaging service is an indispensable diagnostic tool for any medical facility throughout the world. It is the study and application of ionizing radiation like x-rays and non-ionizing radiation like radio waves and others techniques like ultra sound and magnetic field to create image and to help in diagnose and treat various diseases. Various imaging technologies like conventional radiography, fluoroscopy, CR, DR, Ultrasound, CT, MRI, NMIT, PET etc. are utilized by Radiologists and Radiologic Technologists or Radiographers. Since, Shahid Gangalal National Heart Center (SGNHC) is especially dedicated for the cardiac patients, radiologic services here are mainly focused towards the diagnosis and treatment of cardiac diseases.

HISTORY

Foundation of Radiology department can be traced back to the establishment of our reputed SGNHC in 1995. At the start, the department was located in main OPD block which is now sited in old OPD block, new OPD block and IPD block of the center. Being the backbone of any health care centre, the department here plays a vital role in the diagnosis and treatment of cardiac patients. In the beginning, radiology services were provided with one mobile x-ray machine and one manual processing unit , which now boasts of all the modernized and sophisticated radiological imaging modalities. Now, the department provides 24*7 diagnostic and emergency radiologic services.

PRESENT CONTEXT

With the increasing charm of medical imaging technology, Radiology and Imaging Department in SGNHC provides its services with CT Scanner, MRI scanner, USG scanner and Digital Radiographic systems for both OPD and IPD patients.

At present, our Radiology Department is equipped with the following advanced equipment's:

1. One High-end 640 slice MDCT Scanner (the only such modality available in Nepal)
2. One High-end 3T MRI Scanner
3. 4 High-end USG machines, 1-Portable USG machine
4. 2 DR systems
5. 3 CR systems
6. 3 Mobile x-ray machines, 1 High-end Mobile DR machine
7. 5 Dry Laser Imagers

HUMAN RESOURCES

Radiology department is well organized with a trained team which comprises of thirty memebers- 4 Radiologists, 1 Senior Cardiac Imaging Technologist, 2 Senior Radiography Technologists , 1 Radiography Technologist, 5 Senior Radiographers, 11 Radiographers, 1 Dark room operator, 3 Radiologic nurses, 2 attendants. Apart from daily professional work in Radiology and Imaging department, our Radiologic Technologists and Radiographers play a vital role in all kinds of invasive procedures in all the four Cath Labs assisting the interventional cardiologists.

FUTURE PLANS

In future, we have plans to equip our department with one more advanced MDCT scanner, state-of-the art Nuclear medicine imaging modality, modern mobile DR systems etc. to provide all kinds of confirmatory diagnostic and interventional radiologic services to our patients.

RADIATION SAFETY ASPECTS

We always strive to create the safest environment for our patient by implementing the technologies that significantly reduce radiation exposure to patient as well as staffs. All the means of radiation protection especially in Cath Labs and during portable radiography are practiced. The general principle of radiation protection i.e. Optimization, justification of practice and ALARA as well as Cardinal principle of radiation protection i.e. TDS (time of exposure as short as possible ,distance as far as possible and Proper shielding) are always been followed. All the radiation workers are provided with TLD (Thermo-luminescence Dosimeter) that are periodically processed and doses are evaluated with Dose limits recommended by ICRP (International Commission on radiation Protection).

MISSION

The department's mission is to provide state- of-the art radiology and imaging services of high quality for optimum patient care and treatment.

CONCLUSION

Radiology and imaging services here in SGNHC are fully dedicated cardiac radiology and imaging services with highly trained and competent technical manpower to provide all kinds of general radiographic services, cardiac and general CT Scans ,cardiac and general MRI Scans, general and color Doppler USG scans and Cath services along with well equipped modern imaging modalities.

Statistical Data of Services of Radiology Department in The Year 2025

S.No.	Name of the Examinations	Male	Female	Total
1.	General X-rays (CXRs & Others)	32,879	31,499	64,378
2.	USG Abd/Pelvic scans	1666	1517	3183
3.	USG Small Parts(Thyroid,MSK etc)	32	35	67
4.	Renal Doppler	252	126	378
5.	Single Limb Arterial Doppler	15	17	32
6.	Single Limb Venous Doppler	35	27	62
7.	B/L Lower Limb Venous Doppler	16	16	32
8.	B/L Limb Arterial Doppler	256	113	369
9.	B/L Limb Venous Doppler	21	19	40
10	Cardiac MRI	559	370	929
11	Non-cardiac MRI(Brain, MRA/MRV, Spine, Abd,Pelvis, Prostate, Aortogram etc,)	87	80	167
12	CT CA	2758	1819	4577
13	CT Scans, Ohers (Aortogram, PA, Abd/Pelvis, Head, Chest etc.)	1089	860	1949

ACADEMIC COMMITTEE

Prof. Dr. Arun Maskey

Shahid Gangalal National Heart Centre (SGNHC) is tertiary referral cardiac institution in Nepal. The Academic Committee of Shahid Gangalal National Heart Centre (SGNHC) is established with the role of promoting education, training and professional development within the institution. As the national referral center for cardiovascular care in Nepal, SGNHC is committed to clinical excellence in the field of cardiovascular medicine and academic leadership. The Academic Committee works to strengthen training programs, organize academic events, and ensure continuous learning for doctors, nurses, and allied health professionals.

OBJECTIVES

- To promote a strong academic culture within SGNHC.
- To support postgraduate education, residency,
- To start fellowship programs.
- To organize academic meetings, CMEs, workshops, and conferences.
- To develop and update training curricula in line with international standards.
- To build collaboration with universities, professional societies, and international institutions.

COMMITTEE STRUCTURE

- Prof. Dr. Arun Maskey Coordinator
- Dr. Deepak Limbu Member Secretary
- Ms. Nita Dangol Member
- Dr. Manish Shrestha Member
- Dr. Nirmal Panthi Member
- Dr. Sandip Bhandari Member
- Mr. Sulav Paudel Member

ADEMIC ACTIVITIES

- Academic Committee supervised and facilitated a broad range of academic activities, including: - Regular academic sessions such as seminars, case presentations, journal clubs, and morbidity and mortality meetings - Bedside teaching, ward-based learning, outpatient teaching, and procedural training - Continuing Medical Education (CME) programs and in-house scientific meetings.

- Approval of trainings of different faculties, doctors ,nurses and other technical staff of the hospital.

- These activities contributed to continuous professional development of faculty members, trainees, and allied health professionals, and reinforced a culture of learning within the institution.

TRAINING AND TEACHING PROGRAMS

SGNHC continued to function as a major clinical training site for undergraduate and postgraduate students from affiliated universities and institutions. Under the coordination of the Academic Committee, structured clinical training was provided to: - Postgraduate residents in internal medicine, cardiology, pediatric cardiology, anesthesiology, and radiodiagnosis - Fellowship and specialty-level trainees in cardiology and cardiac sub-specialties - Nursing students enrolled in BSc and MSc nursing programs - Allied health trainees including cardiac technologists, catheterization laboratory staff, imaging technicians, and critical care personnel

Training programs were conducted with defined learning objectives, appropriate supervision, and regular evaluation to ensure academic quality and relevance.

FACULTY DEVELOPMENT AND ACADEMIC ENVIRONMENT

The Academic Committee supported faculty development by encouraging active participation in teaching-learning activities, CME programs, workshops, and academic forums. Senior faculty members provided mentorship to junior faculty and trainees, fostering a supportive academic environment and promoting professional growth and academic excellence.

ACADEMIC COLLABORATION AND INSTITUTIONAL LINKAGES

1. BP Koirala Institute Of Health Sciences Dharan,
2. Patan Academy Of Health Sciences Patan,
3. Pokhara Academy Of Health Sciences Pokhara,
4. Madhesh Academy Of Health Sciences Janakpurdham,
5. Rapti Academy Of Health Sciences Dang,
6. National Army Institute Of Health Sciences Kathmandu ,
7. Pokhara Nursing Campus Pokhara,
8. Manmohan memorial institute of health sciences kathmandu,
9. Manipal Medical College Pokhara,
10. National college kathmandu,

11. Lumbini medical college Palpa,
12. Siddharthanagar city hospital bhairahawa,
13. Kathmandu Medical college kathmandu,
14. Atharva business college
15. B&B hospital lalitpur,
16. Nepal medical college kathmandu,
17. Chitwan medical college chitwan
18. Maharajgunj nursing campus kathmandu,
19. National medical college birgunj,
20. Charak memorial hospital pokhara,
21. Trichandra collage, kathmandu
22. Kanti children hospital kathmandu,

The hospital has collaborated with Nick Simons instate to train MD GP doctors and nursing staffs of different remote hospitals of Nepal in management of emergency, acute cardiac care

CONTRIBUTION TO THE NATIONAL HEALTH SYSTEM

Through its academic and training activities, SGNHC continued to make a significant contribution to national human resource development in cardiovascular care. The Academic Committee played a central role in strengthening in-country training capacity, thereby supporting the national health system and improving access to quality cardiac services across Nepal. Fellowship in cardiac Electrophysiology , Fellowship in Pediatric cardiology will be started this year. More fellowships in cardiovascular services, nursing service and other technical subjects are being planned in near future.

CONCLUSION

During the reporting year, the Academic Committee of Shahid Gangalal National Heart Centre remained instrumental in advancing the institution's academic mission. Through coordinated planning, structured training programs, quality assurance mechanisms, and academic collaboration, the committee contributed to sustaining SGNHC's role as a centre of excellence in cardiovascular care, education, and training in Nepal.

PHARMACY SERVICE

Madhu Giri, Pharmacy Incharge

Hospital pharmacy is the health care service, which comprises the art, practice, and profession of choosing, preparing, storing, compounding, and dispensing medicines and medical devices, advising healthcare professionals and patients on their safe, effective and efficient use. Shahid Gangalal National Heart Centre has its own hospital pharmacy. All most every medicine and surgical products required in hospital are available in the pharmacy. Drug and Therapeutic committee is recently reformed for the management of hospital pharmacy.The World Health Organization (WHO) defines a drug and Therapeutic Committee (DTC) as a multi-disciplinary body in healthcare facilities that ensures the rational and sustainable use of medicines , improving care by selecting cost-effective drugs,setting policies,managing formularies,and promoting safe practices. SGNHC hospital pharmacy has three units pharmacy store, inpatient pharmacy, and OPD pharmacy where medicines are dispensed with sufficient counseling. Medicines are dispensed to patients by registered pharmacists and pharmacy assistants in accordance with prescriptions.

HUMAN RESOURCES

One Senior hospital pharmacist, One Senior pharmacist, One pharmacist, Three senior pharmacy assistant, Eleven pharmacy assistant, Four Sr. health assistant

WORKING HOURS

OPD Pharmacy: 24 hours

Inpatient pharmacy: 12 hours

Store and ward supply pharmacy: 8 hours

ACTIVITIES PERFORMED IN HOSPITAL PHARMACY

a) Purchasing – contracting, ordering and receiving

b) Ware housing- storage and restocking

c) Housekeeping:

1) Inventory management

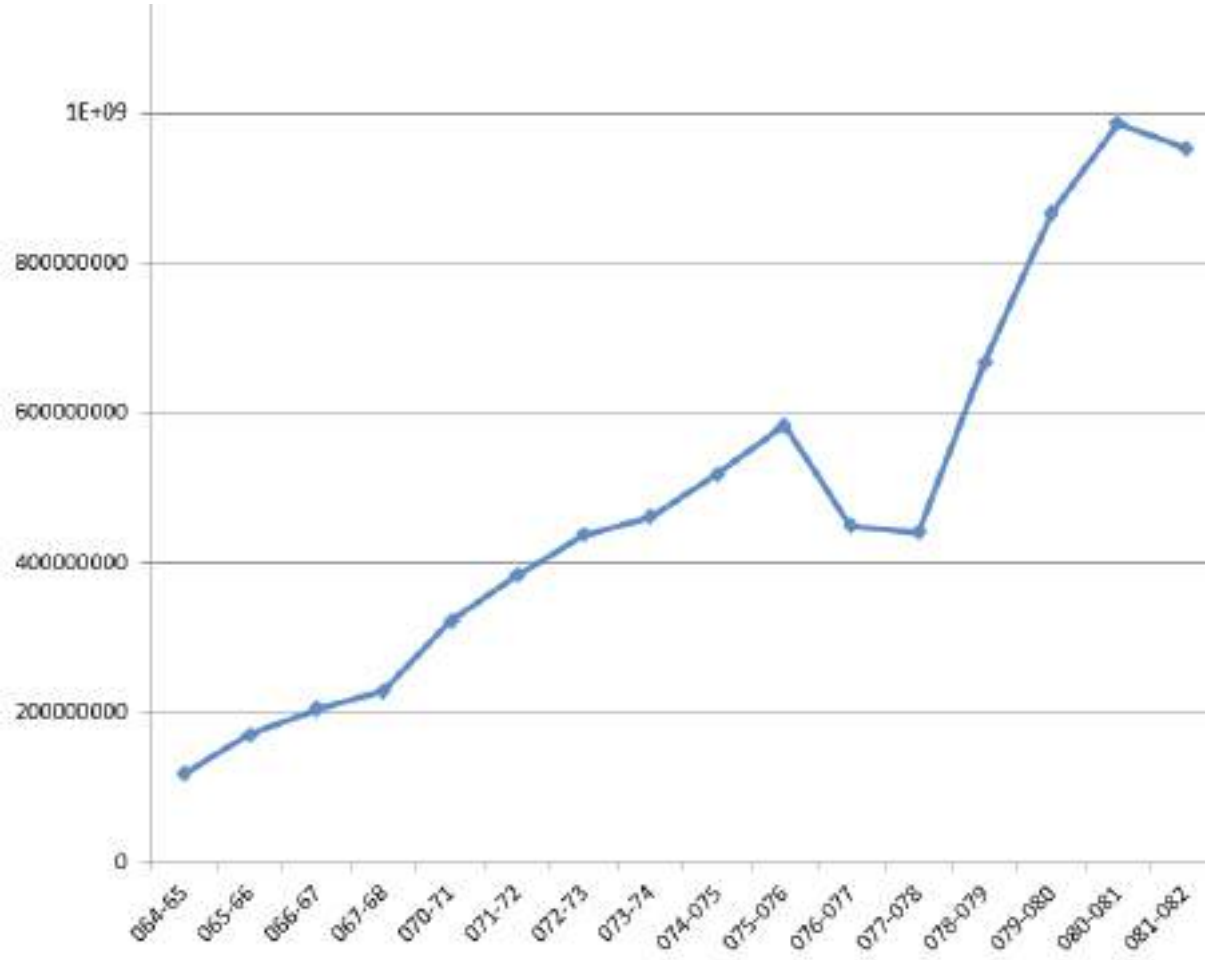
2) Rotation, return and recall

d) Distribution

e) Dispensing and drug counseling

PHARMACY REPORT

The Transaction from hospital Pharmacy is increasing every year. So, hospital is in benefit from the Pharmacy. As compared to previous years, the transaction was slightly decreased due to the change in profit margin as shown in the diagram below.(Transaction has been mentioned in amount)



FUTURE PLAN

- Hospital formulary
- Patient counseling
- Ongoing drug use review
- Pharmacovigilance and implementation of safe medication practices.

PHYSIOTHERAPY SERVICES

Physiotherapy Team

INTRODUCTION

Physiotherapy OPD is located on the ground floor toward left of statue of marytr Gangalal near the hospital entrance gate. Physiotherapy unit at our hospital has been playing a major role in the prevention, management and rehabilitation program of cardiac patients. This unit is also providing cardiac rehabilitation exercise program.

World Health Organization (WHO) has classified Physiotherapy as an independent practice in International Standard Classification of Occupations ISCO Code 2264). According to this code Physiotherapy is classified into a separate entity and not clubbed with Paramedical services.

Physiotherapy is a healthcare profession that focuses on the assessment, diagnosis, prevention and treatment of movement dysfunction and disability aiming to enhance movement, function and quality of life. It plays an important role in health promotion, prevention, treatment and rehabilitation.

HUMAN RESOURCES

Senior cardiac Physiotherapist- 1

Senior Physiotherapy Assistant-1

Physiotherapy Assistant-1

SERVICE PROVIDED

Physiotherapy unit provides both in-patient and out-patient services regularly six days a week along with cardiac rehabilitation exercise program. This unit has been running almost all

phases of cardiac rehabilitation exercise program where it gives exercise prescription to the patients with cardiac diseases. The primary goal of physiotherapy unit is to provide the best physiotherapy treatment to the patient who is seeking physiotherapy services.

It also provide services to all the general medical and surgical conditions which require physiotherapy treatment, although the unit at SGNHC mostly deals with the function of the cardio-pulmonary and vascular system, it also provides other general physiotherapy rehabilitation services to the patients coming to the hospital as in when necessary.

STATISTICAL DATA OF THE YEAR 2025 (2081/ 2082 B.S)

In-patient	Out-patient	Cardiac Rehabilitation (In-patient)	Cardiac Rehabilitation (out-patient)	Total
5478	366	709	19	6572

Months	No. of In-patients	No. of patient enroll in Cardiac rehabilitation (IPD)	No. of Out Patients	No. of patient enroll in Cardiac rehabilitation (OPD)
JANUARY-2025 (Poush-Magh 2081)	483	77	36	5
FEBURARY-2025 (Magh-Falgun 2081)	466	56	31	2
MARCH-2025 (Falgun-Chaitra 2081)	479	42	24	7
APRIL-2025 (Chaitra-Baisakh2081/82)	468	56	10	NIL
MAY-2025 (Baisakh-Jestha 2082)	435	66	3	NIL
JUNE-2025 (Jestha-Ashad 2082)	492	61	10	NIL
JULY-2025 (Ashad-Shrawn 2082)	572	64	31	NIL
AUGUST-2025 (Shrawn-Bhadra2082)	520	57	45	2
SEPTEMBER-2025 (Bhadra-Ashoj 2082)	383	48	33	1
OCTOBER-2025 (Ashoj-Kartik 2082)	348	52	68	1
NOVEMBER-2025 (Kartik-Mangsir 2082)	337	63	45	1
DECEMBER-2025 (Mangsir-Poush 2082)	495	67	30	NIL

FUTURE PLAN

- Extending physiotherapy services based on new evidence-based practice.
- Adding skilled manpower to strengthen the physiotherapy unit.
- Provide safe and reliable physiotherapy service to the patients in the hospital.
- Lobby to form a good cardiac rehabilitation team in the center.

- Create awareness about importance of physiotherapy services through workshop and continue education program among other health professionals in the center, to romote referrals.
- Deliver community exercises programs via camps organized by SGNHC.
- Enforce exercise prescription for cardiac rehabilitation patients.
- Research activities on effectiveness of various exercise protocol and physiotherapy treatment

CONCLUSION

Physiotherapy unit, an integral part of department of preventive cardiology and cardiac rehabilitation of SGNHC, have been providing best physiotherapy services. Despite limited human resources, physiotherapy service has been providing its services smoothly. We look forward to the hospital administration for the acknowledgement about the importance of physiotherapy service, their needs among patient population and increases the human resources to grow our services more effectively in near future. We also hope to get the more referrals form the other health professionals for the physiotherapy and cardiac rehabilitation exercise program in upcoming days. Hence, we would like to thank all the departments, units and the staffs for their constant support and encouragement. We would also like to thank our patients and their relatives for their cooperation and believing in us.

PERFUSION TECHNOLOGY UNIT

Mr. Umesh Khan, Ms. Lalita Shakya, Ms. Laxmi Shrestha, Mr. Ashok Karki, Mr. Sujan Shrestha, Mr. Ashok Shah

INTRODUCTION

"Every advance in perfusion technology represents a step closer to replicating normal human physiology" – Perfusion science.

The Perfusion Unit being an integral component of the hospital's cardiovascular surgery services, is a branch of medical science focused on extracorporeal circulation (outside the body). Perfusion technology has undergone significant evolution since its inception, transforming cardiac surgery from high- risk experimental field into routine and safe clinical practice. Perfusion technology being one of the Dynamic health care profession, new practices are frequently introduced. Continuous advancement in equipment design, biomaterials, monitoring and clinical protocols have markedly improved patients' safety and outcome. Contemporary perfusion practice emphasizes precision, safety and patient specific management which includes miniaturized extracorporeal circulation (MiECC), improved biocompatible coatings, blood conservation techniques, simulation-based perfusion training etc. Future of perfusion practice are expected to focus on automation, artificial intelligence- assisted monitoring and practices and reduction of inflammatory and thrombotic complication. This ongoing advancement will facilitate the better outcome and expansion of perfusion services.

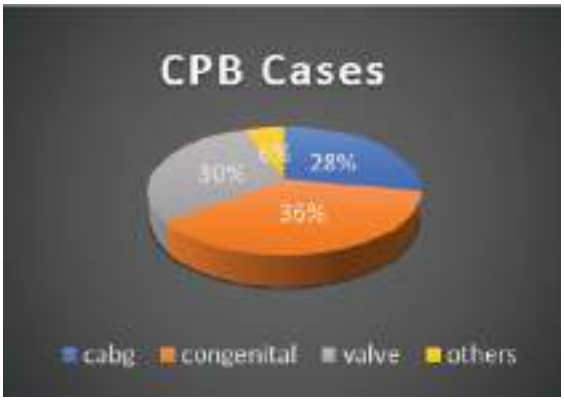
Through use of evidence-based practice and knowledge, we have become competent as a team and have provided service for more than 2 decades and have done more than 25,000 open heart surgeries till the end of 2025.

SERVICES

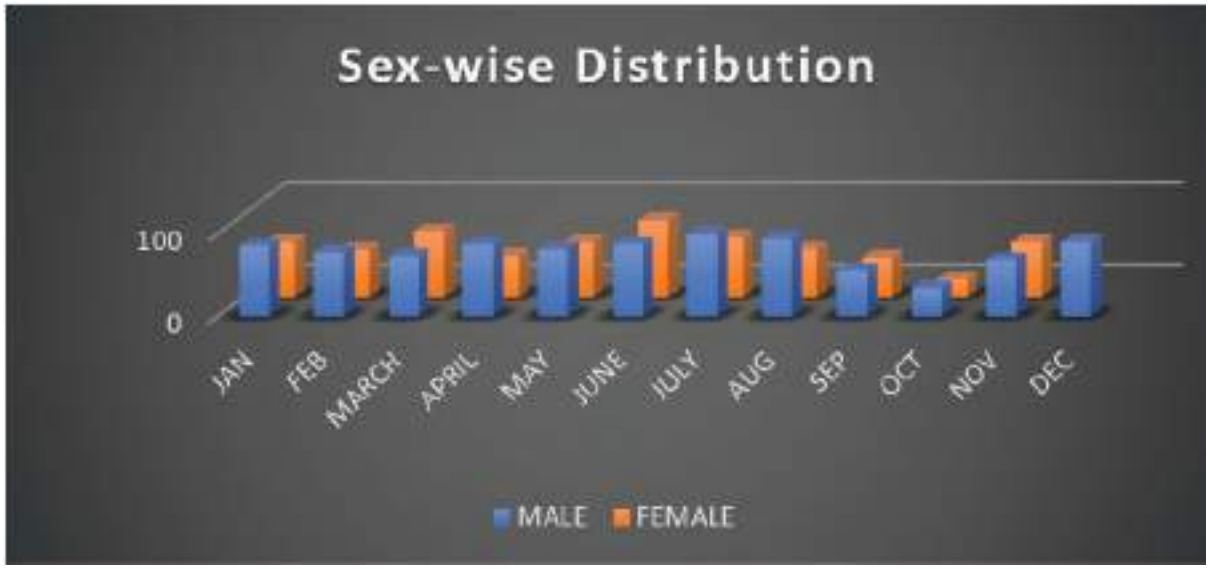
The unit functioned with a dedicated team of trained perfusion professional ensures uninterrupted service coverage for all scheduled open heart surgery cases requiring Cardiopulmonary Bypass as well as emergency. Along with this we have been managing patients with IABP in OT, ICU, CCU and Cath Lab.

Celebration of 25,000 Open heart surgery in SGNHC SERVICES

This year we have operated total 1691 open heart surgery which includes CABG (off pump CABG not included), Valve (MVR, AVR, DVR), Congenital and others includes Modified Bentall's, Myxoma, HOCM, pericardiectomy etc.



S.N	SURGERY	TOTAL
1.	CABG	485
2.	VALVE	525
3.	CONGENITAL	636
4.	OTHERS	50
TOTAL CASES		1696



OTHER ACTIVITIES AND FUTURE PLANS

- 1 senior staff attended ISECTON 2024 conference held in Delhi.
- Presentation was done by a staff at the XXIII International Congress on Management of Cardiovascular disease held on 31 October -1 November 2025 in Kathmandu, Nepal on "Perfusion Practices and Challenges in Resource Limited Cardiac Center: Experience from SGNHC".
- 1 staff and 1 intern Participated in ACLS Training program conducted in SGNHC.
- Enrollment of 1 intern student for six-month internship program from BPKISH, Dharan.
- Successful management of complex and high-risk case along with the complication occurred during CPB management.
- Future plan of equipment expansion according to the expansion of the operation theatres.
- Recruitment of new skilled perfusionist.
- Involvement of Research and Academic activities.
- Participation in continuing medical education programs.

INSTITUTIONAL REVIEW COMMITTEE

Dr. Kartikesh Kumar Thakur, Ms. Suraksha Dhungana

BACKGROUND

Since the establishment of the Institutional Review Committee (IRC) of Shahid Gangalal National Heart Centre (SGNHC) on 27th September 2015 the research being conducted in SGNHC is properly coordinated and monitored.

OBJECTIVES

- To ensure that all studies conducted within SGNHC are done ethically.
- To ensure consistency in the supervision and monitoring of health research.
- To protect the rights of humans and animals involved in the research.
- To regulate and monitor the publication of research work in SGNHC

MEMBERS

S.N.	NAME	DESIGNATION
1.	Dr. Rikesh Tamrakar (Consultant Cardiologist)	Chairman
2.	Dr. Kartikesh Kumar Thakur (Consultant Cardiologist)	Member Secretary
3.	Ms. Nita Devi Dangol (Chief Nursing Supervisor)	Member
4.	Dr. Nivesh Rajbhandari (Cardiac Surgeon)	Member
5.	Dr. Smriti Mahaju Bajracharya (Anesthesiologist)	Member
6.	Dr. Surakshya Joshi (Cardiologist)	Member
7.	Dr. Amshu Shakya (Registrar Paediatric Cardiology)	Member
8.	Mr. Sudip Chandra Dahal (Medical Record Officer)	Member
9.	Mr. Shital Basnet (External Member)	Member
10.	Ms. Suraksha Dhungana (Senior Staff Nurse)	Office Secretary

TRAININGS

Recognizing that basic knowledge of biostatistics is essential for research and academic activities, the Committee (IRC) requested the Nepal Health Research Council (NHRC) to arrange online basic training in research. Accordingly, NHRC conducted a virtual training workshop on Ethics in Health Research on 20 June 2025, in which all IRC members participated.

In addition, during the year 2025, the IRC of Shahid Gangalal National Heart Centre (SGNHC) organized regular research training sessions for hospital staff, conducting one to two classes per week to strengthen research capacity across the institution.

WEBSITE AND ONLINE APPLICATION

A dedicated website for the SGNHC Research Unit and IRC is operational. Submission of research proposals is permitted only through online application via the official portal:

https://research.sgnhc.org.np/. Proposals must be submitted in the prescribed format along with all required documents. Proposals received by the end of an English calendar month are reviewed during the IRC meeting scheduled for the following month.

Since its establishment, the Institutional Review Committee (IRC) has received a total of 428 research proposals, of which 332 have been approved. In the year 2025, 27 proposals were submitted, and 24 were approved.

LIST OF APPROVED RESEARCH PROPOSALS IN 2025

S.No	Research Topics
1.	Perception of Patient Safety Culture among Nurses Working in Tertiary Hospital
2.	Myocardial Infarction and Associated Factors in Young Adults at Tertiary Cardiac Center, Kathmandu
3.	Outcome of Modified Bentall's procedure- A single centre experience
4.	Patient's Perception towards Nursing Care in Tertiary Cardiac Centre of Nepal: A Mixed Method Study
5.	Knowledge of warfarin among patient attending in cardiac outpatient department in Shahid Gangalal National Heart Centre
6.	A Mixed-Methods Study on Multidisciplinary Surgical Site Infection Prevention in a Nepali Cardiac Surgery Hospital: Exploring Healthcare Professionals and Patients/ Caregivers Perspectives
7.	Inpatient outcome in patient with Anterior Wall Myocardial Infarction with Newly Diagnosed Right Bundle Branch Block in a Cardiac Referral Center: A Cross-Sectional Study
8.	Anxiety and Depression in Coronary Artery Disease patients awaiting diagnostic cardiac catheterization in tertiary level hospital, Kathmandu
9.	Continuous Blood Flush Deairation Technique using Cardiopulmonary Bypass Machine in Cardiac Surgery
10.	Microbial Isolates Of Pus And Wound Swab From National Heart Centre Nepal and Their Antibiotic Susceptibility Pattern
11.	Quality of Life of Children with Congenital Heart Disease in a Tertiary Hospital
12.	Role of Colchicine in Prevention of Post Operative Atrial Fibrillation After Coronary Artery Bypass Surgery
13.	The Outcomes of Aortic Valve Surgery and Predictors of Postoperative Hospital Mortality in a Tertiary Cardiac Center of Nepal.
14.	Establishment of National Diagnostic Reference Levels (DRLs) for CT Scans of Different Organs in Nepal
15.	Prevalence of atrial fibrillation and its risk factors in elderly population: A cross sectional study
16.	Prevalence of Diabetes Mellitus in Patients Undergoing Cardiac Surgery with Cardiopulmonary Bypass (CPB)—An Observational Descriptive Cross-Sectional Study
17.	Characteristics of smoking habits among patients undergoing Coronary Artery Bypass Grafting.
18.	Ticagrelor-Associated Dyspnea in Post-PCI Patients at a Tertiary Cardiac Center: A Prospective Longitudinal Observational Study.
19.	One year outcome of Transcatheter Aortic Valve Implantation at Shahid Gangalal National Heart Centre, Kathmandu, Nepal
20.	Comparison of HEART vs EDACS Scores on Predicting Major Events Among Patients with Suspected Acute Coronary Syndrome at the National Tertiary Cardiac Centre: A Cohort Study

21.	Safety and Feasibility of Same Day Cardiac Implantable Electronic Device (CIED) Implantation and Discharge Versus Routinely Hospitalized Patients at National Cardiac Center– A Prospective Cohort Study
22.	Workplace Violence and Coping Measures Among Nurses at Tertiary Hospital
23.	Outcome of off-pump CABG in single center of Nepal
24.	Incidence of patent ductus arteriosus in patients undergoing surgical ventricular septal defect closure

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Infection Prevention and Control Practices

Kopila Luitel

Infection prevention and control practices are essential for providing safe and high-quality patient care and are crucial elements of patient safety and providing quality services to the patient. Specialized centers, such as the cardiovascular care center face unique infection risks due to invasive procedures, including central lines, ventilators, and catheters. The core practices of infection prevention and control should be implemented in healthcare centers. All those practices are intended to prevent patient as well as healthcare personnel who have the potential for direct or indirect exposure to patients or infectious materials, including body fluids, contaminated medical supplies, devices, and equipment; contaminated environmental surfaces or contaminated air. It also plays a significant role in providing quality services to the patients who are seeking health care services from a healthcare setting.

Activities conducted by the infection prevention and control unit are

- Monitoring of IPC practices and control activities.
- Implementation of standard precaution guidelines - Hand Hygiene, Use of PPE, Respiratory Hygiene/Cough Etiquette, sharp safety, safe injection practice, Proper cleaning and disinfection,
- Provide Education and Training of Healthcare Personnel on Infection Prevention.
- Provide Patient, Family, and Caregiver Education.
- Ensure environmental infection control-linen and laundry management, proper management of healthcare waste, appropriate patient placement, and monitoring environmental cleanliness.
- Transmission-Based Precautions.
- Occupational Health- Immunization/Vaccinations.
- Healthcare-associated infection and Surveillance Study.
- Review and revise infection control guidelines and protocols according to national guidelines.

Surveillance Study

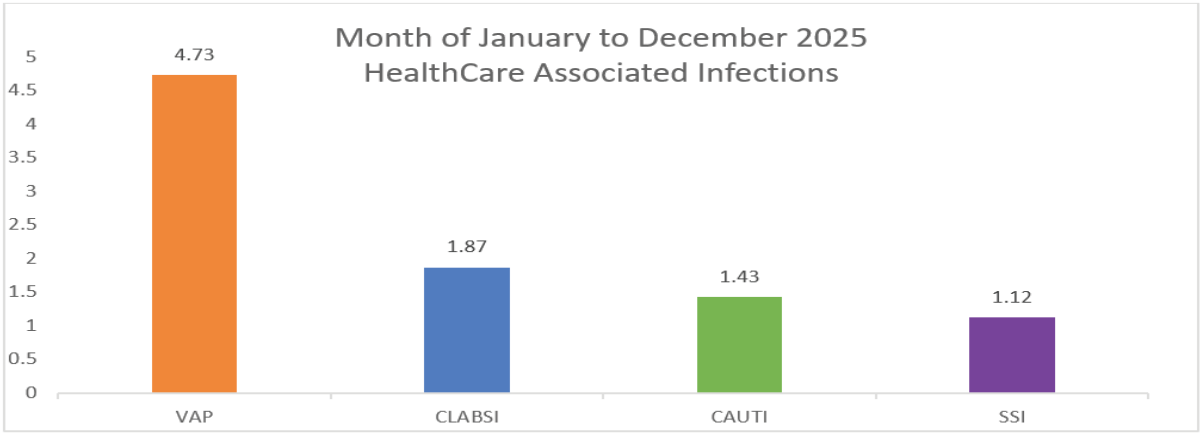
Surveillance is defined as the ongoing systematic collection of data regarding health-related events for use in action to reduce morbidity and mortality. Healthcare-associated infection poses a considerable challenge to healthcare systems worldwide. HAI surveillance data can be used to estimate the scope, spread, and location of infections, monitor trends, evaluate preventive efforts, and improve practices, policy, and facility planning.

Objectives of HAI Surveillance

• Reducing infection rates
• Establishing endemic baseline rates
• Identifying outbreaks
• Identifying risk factors
• Document quality of care
• Compare hospitals' HAI rates

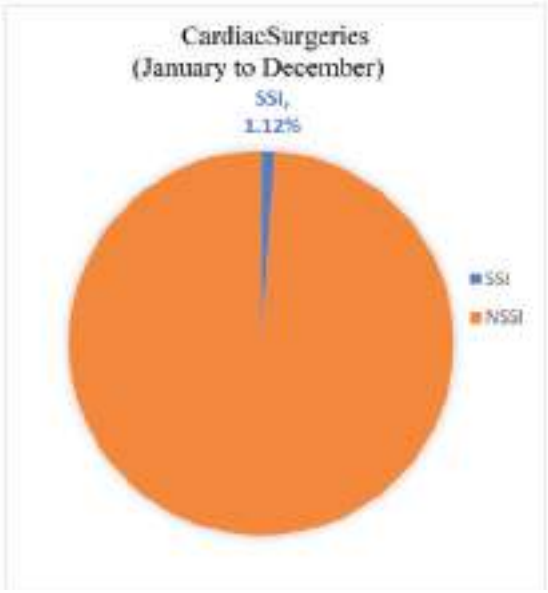
Here we have data on the Surveillance study Surgical Site Infection (SSI), Ventricular-Associated Pneumonia (VAP), Central line Associated Blood Stream Infection (CLABSI), Catheter Associated Urinary Tract Infection (CAUTI) and the most common causative organisms, Culture and Sensitivity(C/S) test are in sputum, urine, blood, and body fluids, Hand hygiene compliance from January to December 2025 as follows.

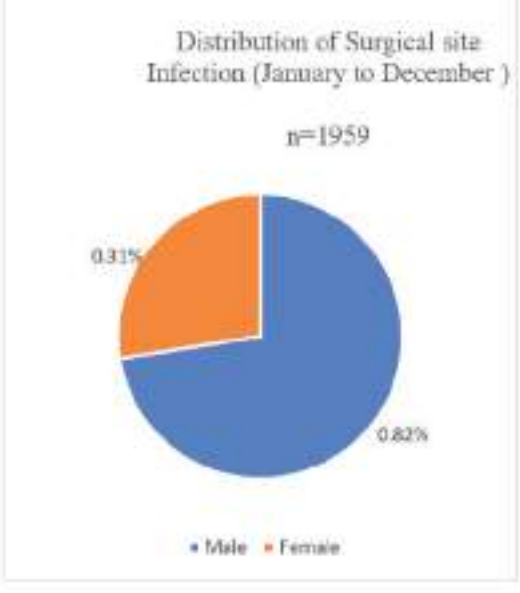
Healthcare-Associated Infection



There were a total of 2622 cardiac patients who underwent different invasive lines and operative procedures from the month of January to December 2025. Among them, two thousand three hundred and twenty-eight days of patients on Mechanical Ventilator, among them, 4.7 per/year developed ventilator-associated pneumonia per 1000 ventilator days. Likewise, four thousand nine hundred and twenty-six days of patient on central venous catheter, among them 1.8 per/year developed central line associated blood steam infection per 1000 central line days. In this way, five thousand two hundred and forty- five days of patient on urinary catheter device 1.8 per/year were developed CAUTI per 1000 urinary catheter days, and one thousand nine hundred fifty-nine patients underwent heart surgery, 1.12% developed surgical site infection. Overall, the most common HAI was VAP, and the least was SSI. The most common risk factors for developing HAI were diabetes mellitus, Hypertension, COPD, malnutrition, and the causative organisms were Acinetobacter, Klebsiella pneumonia, and Staphylococcus aureus.

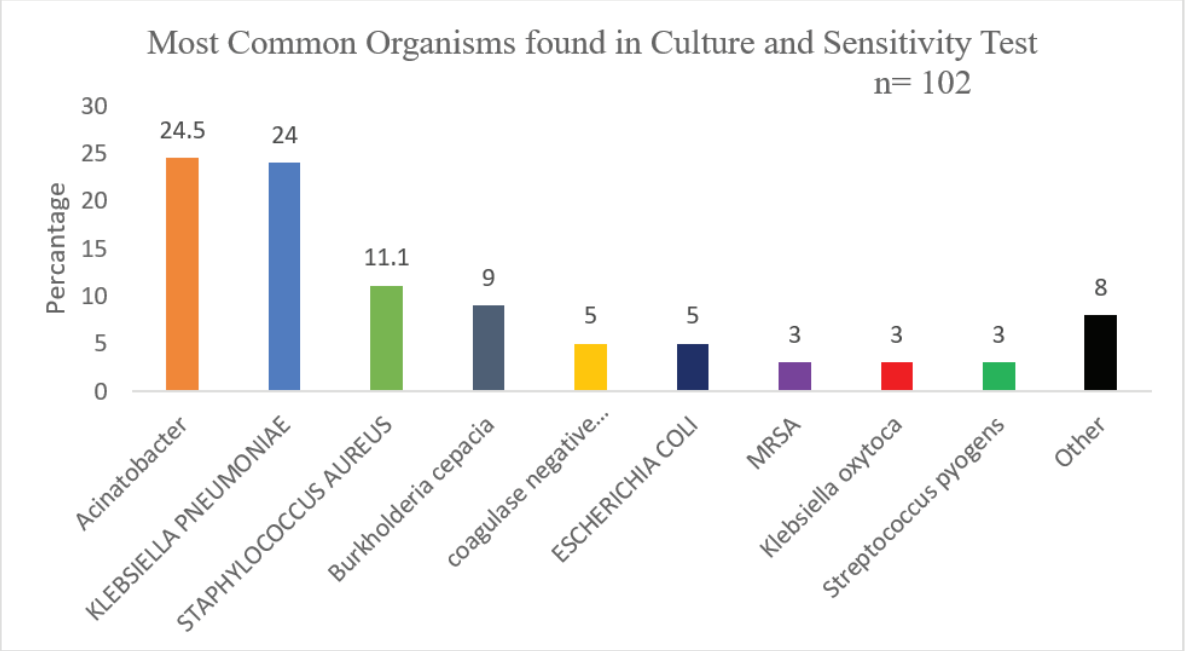
Total Cardiac Surgeries and SSI (January to December 2025)



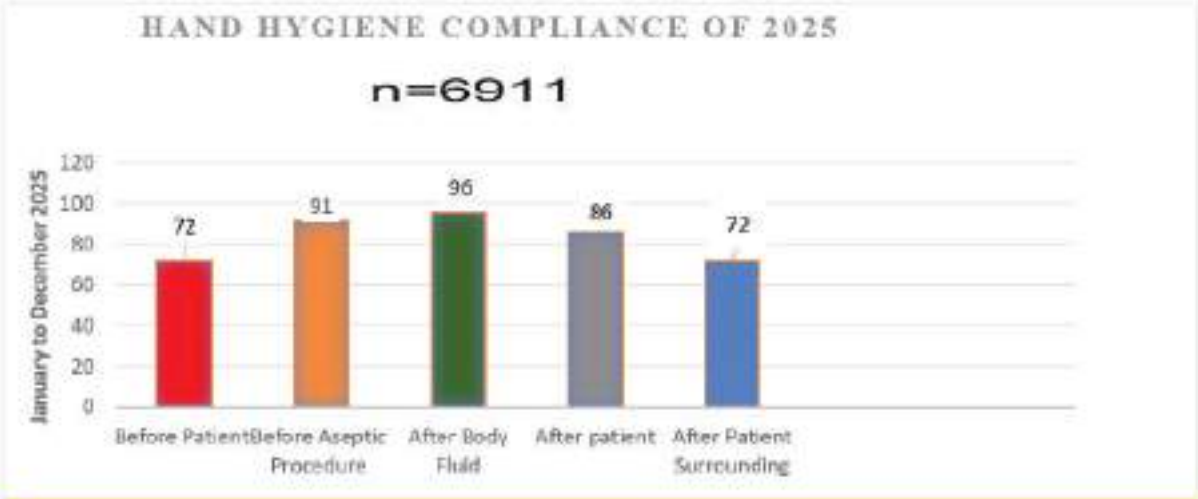


There was a total of one thousand nine hundred fifty-nine cases that underwent cardiac surgeries from January to December. Among them, one thousand one hundred and fifty patients were male, which was 58.7%, and eight hundred and nine patients were female, which was 41.29%. likewise, the total number of SSI was 1.12%, among them, the male was 0.82%, and the female was 0.31%. The prevalence of SSI, as well as all HAI rates, is higher in the male than the female population.

Common Microorganism Culture and Sensitivity Test



Common health care-associated infection-causing organism findings in our setting during the period of the surveillance study. The most common causative organisms were Acinetobacter, Klebsiella pneumonia, staphylococcus aureus, the least were Streptococcus pneumoniae, Streptococcus pyrogens and Enterococcus species etc. The C/S test was done in different patient sample like sputum, blood, wound swab, urine, and body fluid. Among them, most of the bacterial growth was seen in sputum C/S. According to the report, drugs sensitivity is highest for doxycycline, followed by colistin, meropenem, linezolid and clotrimazole Likewise, drugs resistance is highest for ceftriaxone, piperacillin+ tazobactam, gentamycin, cefixime, levofloxacin, and ciprofloxacin



There were total of six thousand nine hundred and eleven opportunities of hand hygiene compliance, which were observed in different wards among doctors, nurses, physiotherapist and attendants by following World Health Organization's five moments of hand hygiene checklist. While doing hand hygiene, we observed five movements of hand hygiene compliance. The maximum hand hygiene compliance was performed in the after-body fluid 96%, and the least compliance was in the after-patient surroundings 72%. So, this data suggests that hand hygiene compliance is satisfactory. Continuous monitoring of hand hygiene compliance, providing the right products in the right places, and educating individuals on how they can break the chain of infection. Hope it will change their attitude and behavior to improve hand hygiene compliance and break the chain of infection.

CHALLENGES DURING SURVEILLANCE

Healthcare-associated infections can result in a prolonged hospital stay, comorbidity factors, long-term disability, increased resistance of microorganisms to antimicrobial agents, increased risk of mortality, and a massive additional financial burden for the health system and for patients and their families. So, The Standard practices of infection prevention and control should be implemented in the healthcare center.

- Infrastructure of the organization: Lack of a separate room for isolation, and clean and infected zone transportation facilities
- Increased staff workload due to insufficient human resources: Rapid turnover of staff, due to this reason, staff workload is constant instead of new staffing.
- Lack of a separate room for isolation and clean and infected zone transportation facilities.
- Attitude and behavioral problem health care personnel. Difficulty in changing the attitude of healthcare personnel
- All of the health care workers know the hand hygiene technique, but difficult to apply in routine practice
- Ignorance in the use of precautionary measures
- Lack of enough supply of safety measures for patients and healthcare personnel
- Instead of these challenges Surveillance of HAI should drive the implementation of evidence-based infection prevention and control practices continuously to reduce the incidence of these infections, decrease the transmission of resistant pathogens in healthcare settings, and improve patient safety. Surveillance that is tied to strengthening infection prevention and control practices and characterizing antimicrobial resistance patterns.

FUTURE PLAN

- Conduct IPC training for all staff, including cleaners and support staff periodically.
- Ensure continuous availability of hand hygiene supplies and PPE
- Ensure monitoring Hand hygiene compliance and educating individuals on how they can break the chain of infection.
- Improve surveillance and reporting of HAIs and occupational exposures
- Implement routine IPC audits and feedback mechanisms continuously.

CONCLUSION

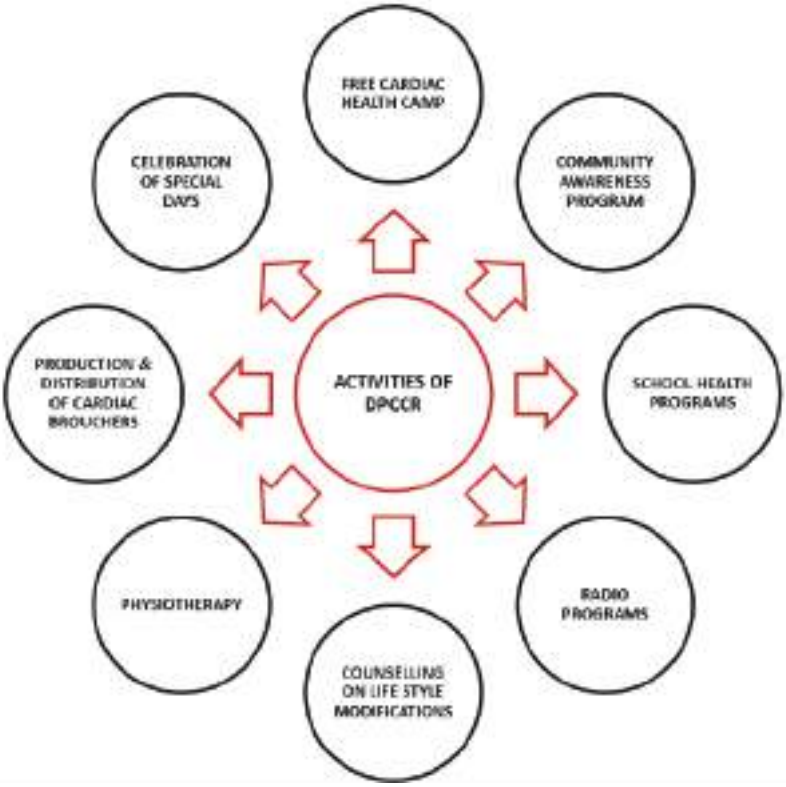
Surveillance of HAI, Hand Hygiene compliance, and identification of causative pathogens are such a challenging task that requires lots of effort and dedication. There are many challenges we are facing, as mentioned above. This leads to high HAI prevalence. Certainly, the effort of the IPC team alone is not enough to overcome these challenges. We need continuous good support from every department of the hospital and administration to achieve our aim of SGNHC staying free from infections.

DEPARTMENT OF PREVENTIVE CARDIOLOGY AND CARDIAC REHABILITATION (DPCCR)

Ms. Suraksha Dhungana, Ms. Januka Khadka

INTRODUCTION

Department of Preventive Cardiology and Cardiac Rehabilitation (DPCCR) have been established in Shahid Gangalal National Heart Center to initiate and develop effective preventive strategies and establish cardiac rehabilitation programs.



Counseling on life style modification:

Counseling is the most important role of health care professionals for the maintenance of compliance to the treatment protocols. The department has formally started patient counselling on Bhadra 2065. We focused on disease, its complications, preventive strategies, treatment protocols, lifestyle modification, heart healthy dietary pattern, regular exercise, regular medication, regular follow up and so on. Now we are providing health education in two approaches:

Indoor counseling:

We have been counselling the patients at the time of discharge in their respective ward. In the year 2025, we have provided health education to 5435 patients and their family members.

Outdoor counseling: We have been counselling the patients attending OPD in the OPD block at Room no. 118. In the year 2025, we have provided health education to 4190 patients and their family members.

Child Guidance Clinic

The Child Guidance Clinic is a specialized service that addresses behavioral and psychological problems in children. Recognizing the increasing need at our center, we started the Child Guidance Clinic on 2082/5/22. We have provided counseling to children and their parents to help them manage various behavioral and psychological issues.

Free Cardiac Health Camp:

It is very important to decentralize the health care services. Free cardiac health camp is one of the effective means to cover the large population. The main objective of these health camps is to screen the cardiac problems, provide appropriate treatments and raise health awareness among the population of remote areas.

In the year 2025, health camps benefitted a total of 7721 patients in the following different areas.

S.N.	Venue	Duration	Total patient examined	ECHO	ECG
1	Myanglung, Terhathum	1 day	700	680	70
2	Piyutar, Lalitpur	1 day	210	210	-
3	Nepal Snehi Kankha, Dhapakhel	1 day	69	69	-
4	Arughat, Gorkha	1 day	700	650	210
5	Beni, Myagdi	2 days	1050	948	192
6	Gorakhani, Solukhumbhu	1 day	300	225	66
7	Madhopuri, Rautahat	1 day	500	240	165
8	Phungling, Taplejung	1 day	700	500	200
9	Dulegauda,Tanahun	1 day	780	719	115
10	Geetanagar, Chitwan	1 day	550	550	50
11	Wayal, Doti	1 day	620	500	70
12	Gaidakot, Chitwan	1 day	242	240	72
13	Siraha, Siraha	2 days	1300	1197	80
TOTAL			7721	6048	1290

Cardio Pulmonary Resuscitation Training

Cardio Pulmonary Resuscitation (CPR) is a vital, lifesaving skill that can be performed by trained individuals. Recognizing its importance, this year we conducted CPR (Basic Life Support) training in conjunction with a free cardiac health camp. Through this initiative, medical and non-medical professionals from Myagdi and Siraha districts were trained. Altogether, 152 participants from Myagdi and 109 participants from Siraha successfully completed the training.


CPR TRAINING AT MYAGDI


FREE CARDIAC CAMP AT SIRAHA


FREE CARDIAC CAMP AT DOTI


CPR TRAINING AT SIRAHA

School Health Program:

The School Health Program targets school children. In 2025, we visited various schools and have so far screened 3,972 students. The program is ongoing in Nagarjun Municipality, Kathmandu.

S.No.	Name of schools	Total number of participants
1	Ratna Rajya School, Baneshwor	885
2	Imperial Business College	195
3	Shree SitapailaMa.Vi	506
4	Yuba SahabhagitaMaVi	313
5	Best Academy	265
6	Shishu Nikunja Secondary School	513
7	Gajurmukhee Secondary School	305
8	Shree JanaudharMaVi	500
9	Shree Sitaram Ma Vi	490

Health education material production

We have been producing brochures, pamphlets, flip carts, play cards, posters, banners etc. for mass education. Brochures related to cardiac diseases, cardiac procedures, healthy diet, physical exercises are produced and freely distributed to the patients.

Celebration of Special Days:

We have been celebrating the special days like World Hypertension Day and World Heart Day. In the year 2025, we have celebrated the special days by doing various activities

World Hypertension Day:

As part of our annual tradition, we celebrated World Hypertension Day in May 2025 by organizing free health camp at SGNHC premises. A total of 315 patients benefited from this health camp, offering services such as height and weight measurement, BMI, blood pressure measurement and random blood sugar measurement using a glucometer. For those with a high BMI score, high BP and high Blood sugar, Counselling regarding diet and exercise was provided.

World Heart Day:

On World Heart Day this year, we celebrated on September 25, 2025, as September 29 was a public holiday due to Dashain. The walkathon program started from SGNHC to Dhumbarahi and returned to SGNHC. Following the walkathon, an interaction program was conducted with hospital staff members, focusing on the rising prevalence of heart disease, preventive strategies, and the importance of lifestyle changes to reduce risk.

Social Work

This year, in collaboration with SCTVN (Society of Cardiovascular and Thoracic Nurses), we organized a free health camp and blood donation program on the premises of SGNHC. The camp included height and weight measurements, BMI calculation, blood pressure measurement, and blood sugar monitoring. High-risk individuals were identified, and education on diet and lifestyle modification was provided. A total of 165 people benefited from the health camp, and 20 individuals actively participated in the blood donation program

Diagnostic and Therapeutic Interventions in Congenital /Structural Heart Disease

Dr. Manish Shrestha, Dr. Vidhata Bhandari KC

Congenital heart disease (CHD) and structural heart disease both encompass abnormalities in cardiac anatomy; however, they differ in their onset and underlying causes. CHD is present at birth and arises from genetic and/or environmental factors, whereas structural heart disease generally develops later in life due to genetic predisposition, infections, age-related degenerative changes, or associated comorbidities. Structural heart diseases account for a substantial proportion of the cardiovascular disease burden in low- and middle-income countries.

Globally, the incidence of congenital heart disease is estimated at approximately 8 per 1,000 live births, with Asia reporting the highest prevalence at 9.3 per 1,000 live births. In Nepal, the incidence is estimated at around 7 per 1,000 live births. In pediatric populations, CHD is most commonly characterized by shunt lesions such as atrial septal defect (ASD), ventricular septal defect (VSD), and patent ductus arteriosus (PDA). In contrast, valvular heart diseases—including aortic stenosis, mitral regurgitation, and tricuspid regurgitation—are more prevalent among older age groups.

Surgical intervention remains the cornerstone of treatment for many congenital and structural heart diseases, with procedures tailored to restore normal anatomy, improve physiological function, or provide palliation in complex cases such as single-ventricle physiology. However, many patients present with comorbid conditions that increase surgical risk. In recent years, transcatheter interventions have emerged as effective alternatives to open-heart surgery for an expanding range of cardiac conditions. These minimally invasive approaches offer significant advantages, including reduced bleeding, shorter hospital stays, faster recovery, and minimal postoperative discomfort.

Interventions for structural heart disease represent a rapidly advancing field that demands specialized training and technical expertise. These procedures require precise navigation of cardiac chambers and great vessels, mastery of large-bore vascular access, intracardiac manipulation, device deployment, occlusion techniques, and a comprehensive understanding of three-dimensional cardiac anatomy.

Shahid Gangalal National Heart Center (SGNHC) remains committed to adopting advanced

technologies and delivering treatment modalities comparable to international standards. Through sustained innovation, SGNHC pioneered echocardiography-guided, fluoroscopy-free transcatheter closure of PDA and ASD in Nepal, in collaboration with expert teams from the Tongji Institute of Beijing and Hubei Province. During the reporting year, the Center achieved another national milestone by becoming the first institution in Nepal to perform sinus venosus ASD stenting and left atrial appendage occlusion, under the guidance of an experienced Indian interventionalist. Additionally, successful transcatheter closure of ruptured sinus of Valsalva and stenting of the left pulmonary vein further expanded the Center's interventional capabilities. The year 2025 was marked by significant political instability in Nepal, which adversely affected healthcare delivery and resulted in a notable decline in procedural volumes compared to previous years. Despite these challenges, a total of 921 patients underwent catheter-based interventions for structural heart disease at SGNHC. Of these, 605 patients (65.7%) were older than 15 years, while 316 patients (34.3%) were younger than 15 years. Among pediatric patients, PDA device closure was the most frequently performed procedure. In adults, ASD device closure was the most common intervention, followed by percutaneous transluminal mitral commissurotomy (PTMC) for rheumatic mitral stenosis.

Table 1 : No of Cath procedure for Congenital/Structural heart disease in the year 2024

Intervention	Total	Less than 15 years	More than 15 years
ASD DEVICE CLOSURE	329	73	256
PTMC (Percutaneous Transluminal Mitral Commissurotomy)	256	5	251
PDA DEVICE CLOSURE	135	98	37
RHC/LHC(Right/ Left heart catheterization)	83	65	18
BPV (Balloon Pulmonary Valvuloplasty)	51	31	20
VSD DEVICE CLOSURE	18	13	5
BAV (Balloon Aortic Valvuloplasty)	14	14	
TAVR (Transcatheter Aortic Valve Replacement)	7		7
MAPCA COILING	5	1	4
PDA Stenting	5	5	
COA BALLOONING	4	3	1
COA stenting	2	1	1
RSOV (Rupture of Sinus of Valsalva)	2		2
Shunt Ballooning	2	2	
CAG in Structural heart disease	2	2	
Balloon atrial septostomy	2	1	1
LAAO (left Atrial Appendage Occlusion)	1		1
Coronary Artery Fistula Occlusion	1	1	
Sinus Venous ASD Closure	1		1
LPV stenting	1	1	
Total	921	316	605
Total Intervention	Total	921	

Note: PTMC: Percutaneous Transluminal Mitral Commissurotomy, PDA: patent ductus arteriosus, ASD: Atrial septal defect, VSD: Ventricular Septal defect, MAPCA: multiple aorto pulmonary collaterals, COA: coarctation of aorta, LAAO : left Atrial appendages occlusion,, BAS: Balloon atrial septostomy, CAG: coronary angiogram, LPV : left pulmonary vein stenting

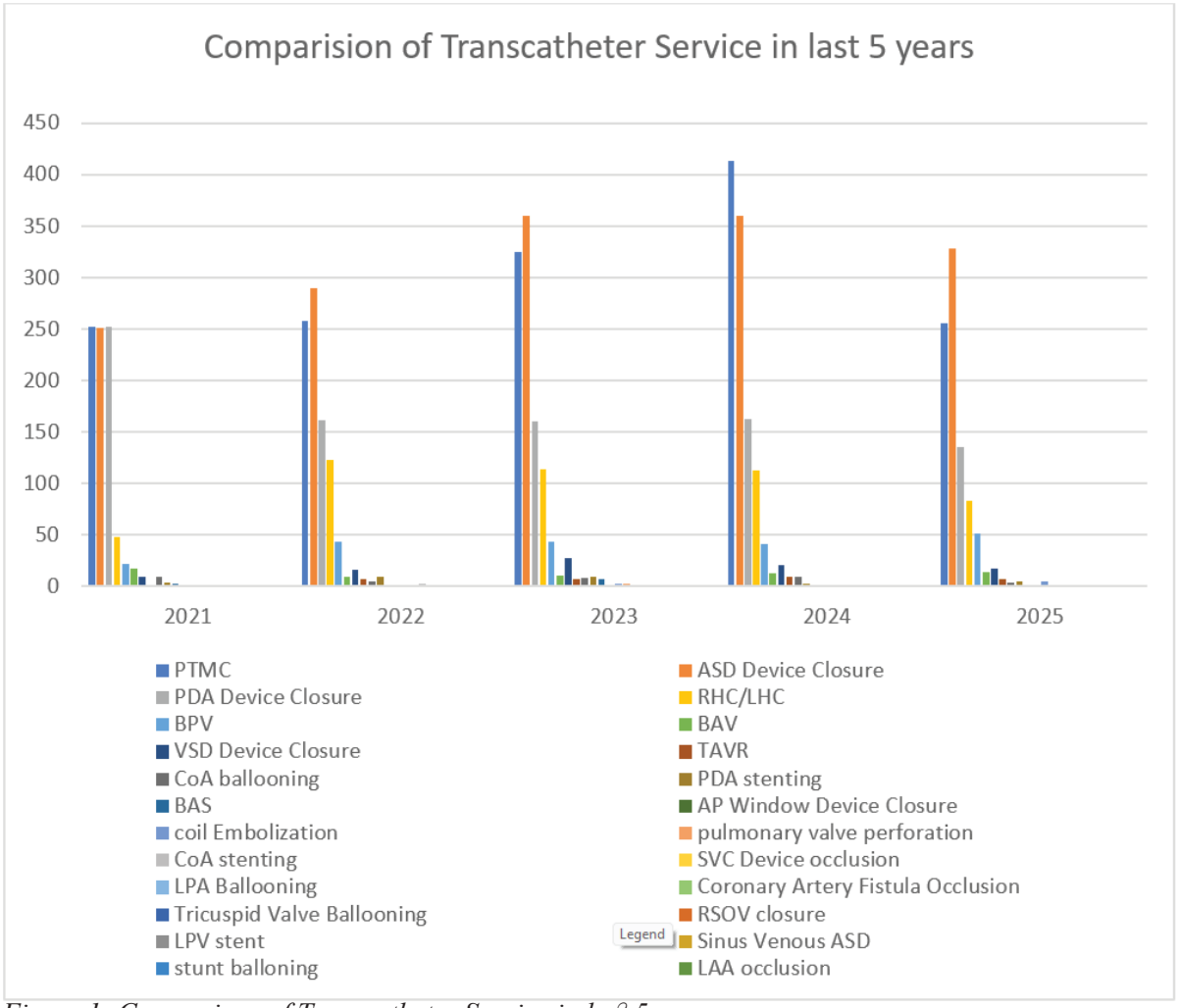


Figure 1: Comparison of Transcatheter Service in last 5 years
Note: PDA: patent ductus arteriosus, ASD: atrial septal defect, VSD: Ventricular septal defect, AP: aortopulmonary, MAPCA: multiple aorto pulmonary collaterals, RHC/LHC: right/left heart catheterization, BPV: balloon pulmonary valvuloplasty, BAV: balloon aortic valuloplasty, PTMC: percutaneous transluminal mitral commisurotomy, COA: coarctation of aorta, BAS: Balloon atrial septostomy, CAG: coronary angiogram ,RSOV : Rupture of sinus of Valsalva , TAVR: Transcatheter aortic valve replacement, Left pulmonary vein stenting.

A wide spectrum of transcatheter procedures was performed in the pediatric population. Of the 316 children treated, 98 (31%) underwent PDA device closure, 73 (23%) ASD device closure, and 65 (20%) diagnostic right and left heart catheterization. Other procedures included balloon pulmonary valvuloplasty (31; 9.8%), balloon aortic valvuloplasty (14; 4.4%), VSD device closure (13; 4.1%), PDA stenting (5; 1.5%), PTMC (5; 1.5%), balloon angioplasty for coarctation of the aorta (3; 0.9%), and coronary angiography for congenital heart disease (2; 0.6%), both of which revealed anomalous origin of the left coronary artery from the pulmonary artery (ALCAPA). Additionally, single cases of left pulmonary vein stenting, balloon atrial septostomy, and major aortopulmonary collateral artery (MAPCA) coiling were successfully performed.

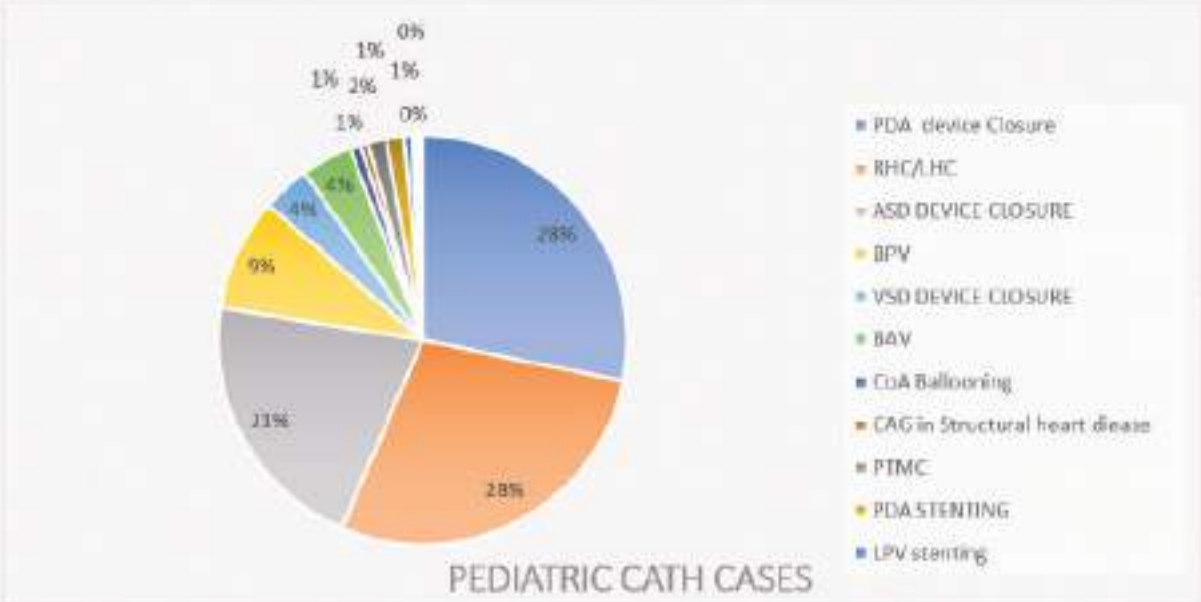


Figure 2: Case distribution of transcatheter intervention in pediatric age group (less than 15 years) in 2025.

These transcatheter interventions have significantly expanded treatment options for patients who are unsuitable for surgery due to underlying medical conditions. They have contributed to reduced morbidity, faster recovery, and improved patient comfort. Although the overall volume of structural heart interventions declined in 2025 due to political instability, the year was notable for the introduction of several novel procedures at SGNHC. Collaborative efforts between structural and congenital interventionists resulted in successful sinus venosus ASD occlusion, left pulmonary vein stenting, coronary artery fistula closure, left atrial appendage occlusion, and device closure of ruptured sinus of Valsalva—several of which were performed for the first time in Nepal. The Center also continued to advance fluoroscopy-free, echocardiography-guided PDA and ASD device closures.

Congenital and structural heart interventions are steadily evolving in developing countries such as Nepal. Continued progress in this field will require strong institutional commitment, increased government funding, and focused training programs to support emerging therapies, including percutaneous pulmonary valve implantation (PPVI), transcatheter edge-to-edge repair (TEER) of mitral and tricuspid valve, paravalvular leak closure, Hybrid

Historical Milestones, Institutional Progress, and Our Nursing Team

Vidya Joshi Koirala, Matron

Shahid Gangalal National Heart Centre is located in the property of then Bansbari shoe-factory which was officially handed over by His majesty of Government on 8th Bhadra 2052 B.S. It was founded by the Government of Nepal under the leadership of the Late Hon. Prime Minister Man Mohan Adhikari and was officially named on 19th Bhadra 2052 BS (1995 AD) in honor of Martyr Gangalal Shrestha. The primary purpose of the institution is to function as Nepal's national referral center for cardiac care, providing specialized, advanced, and comprehensive tertiary-level cardiac services to patients across the country. The centre operates under an Autonomous Hospital Board governed by rules, regulations, and policies set by both the government and the organization. Its governance structure was further strengthened when the Hospital Board Bill was passed by Parliament in 2057 BS (2000 AD). The government initially supported the establishment with seed money of NPR 50,00,000. Among the hospital's historical partners, Australia's ADRA (Adventist Development and Relief Agency) and Mercantile group (Late MR. Gopal Rajbhandari) provided significant early support. Australia's ADRA helped to establish the original Cath Lab, which now serves as the post-catheterisation area.

Mercantile group contributed to the establishment of the Operation Theatre and the Surgical ICU, which was originally used as the CCU, later replaced by the new Cath Lab , the building named after the donors as "Gopal- Kamala building" . The pioneers and founding contributors of the hospital include a distinguished medical team comprising Dr. Bhagwan Koirala, Dr. Man Bahadur KC, Dr. Rabi Malla, Dr. Arun Maskey, and Dr. Diwakar Sharma. The early nursing team played an equally vital role, beginning with the first nurse, Ms. Prati Badan Dangol, along with dedicated contributors such as Ms. Vidya Joshi Koirala, Ms. Dibyashori Khati, Ms. Roji Shakya, Tulasha K.C. and so on. The institution's nursing leadership was shaped under the guidance of the first Matron and Head of Nursing, Ms. Maya Manandhar, who served from 2059 to 2067 BS. Currently, the board of directors is led by Dr. Sudha Sharma (Chairperson); Honorable Minister of Health and Population. The current Executive Director is Prof. Dr. Rabi Malla and the present Head of the Nursing Department (Matron) is Ms. Vidya Joshi Koirala.

The development of clinical service at our center reflects steady and systematic progress. Outpatient services began on 15th Poush 2055 BS (January 1, 1999), followed by the initiation of diagnostic services such as Echocardiography, TEE, TMT, and ABP in Baisakh 2056 BS (April 1999). Cardiac surgery services advanced rapidly, with the first cardiac surgery performed in Kartik 2056 BS (October 1999). The formal establishment of the Cardiac Surgery Unit was on 7th Bhadra 2058 BS and the first surgery was PDA ligation in a 7-year-old girl. The first open-heart surgery, an ASD closure, was done on 18th Bhadra 2058 BS. Indoor services were launched on 16th Baishakh 2057 BS (April 24, 2000) with nine beds, with the first indoor patient being a case of rheumatic heart disease. Formal inauguration of the Indoor services, ICU, CCU, and OT complexes was done on 20th Bhadra 2058 BS (September 5, 2001). Pediatric cardiology services began in January 2004. The pediatric ward was established with 10 beds on 2075/12/12 B.S and later expanded to 15 beds, supported by the addition of a 6-bed Pediatric Medical ICU (2080/9/4), a 12-bed Pediatric Surgical ICU, an 18-bed Pediatric Pre-operative area, and additional postoperative beds.

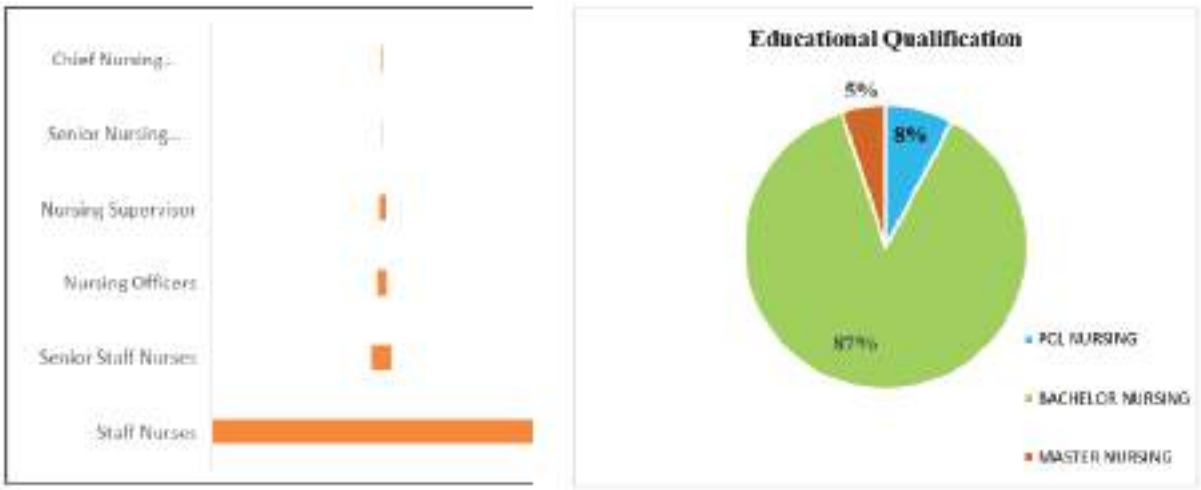
SGNHC provides both basic and advanced cardiac care through indoor and outdoor services.

The indoor services are offered across a total of 304 beds, including 69 in the intensive care unit, 162 in the general ward, 31 in cabins, and 42 in the emergency department. Outdoor services include an OPD across four settings: general OPD, paying OPD, cardiac package, and corporate package.

There are seven departments at SGNHC which are Department of Cardiology, Cardiovascular Surgery, Paediatrics Cardiology, Anesthesiology, Nursing, Preventive Cardiology and Cardiac Rehabilitation, Radiology and Critical Care. Apart from these departments, various committees, including the Academic Committee, Institutional Review Committee, Infection Prevention Committee, and ERTF Committee, are working efficiently to provide excellent services. Moreover, we are planning to develop clinical audit team.
SGNHC offers various schemes, including the Children Assistance Program (CAP), Bipanna Program, PTMC Program, RHD Program, and Senior Citizenship Scheme (SCS). Additionally, funds from SGNHC, SGNHC Alumni, the pediatric Fund, and the Nursing Fund also assist patients. Furthermore, free food is provided twice a day for poor patients and their visitors with the contribution by Samanuvuti Nepal and Aarati Bhog Pariwar.

Our Nursing Team

A total of more than 600 human resources, including doctors, nursing professionals, other healthcare professionals, and administrative personnel, are working at SGNHC. The nursing team, consisting of a total of 378 members, includes 1 Chief Nursing Supervisor, 2 Senior Nursing Supervisors, 7 Nursing Supervisors, 10 Nursing Officers (Sisters), 22 Senior Staff Nurses, and 336 Staff Nurses. To date, SGNHC has supported over 60 nursing staff members in further studies. This chart displays the classification of nurses based on their position and their educational qualifications.



We have trained our nurses in various discipline which includes Basic Life Support, Advanced Cardiac Life Support, Infection Prevention and Control, Operation Theatre, Cath lab, Dialysis, Critical Care, Clinical training skill, counselling and so on.
The vision is to achieve continued excellence through hard work, cooperation, coordination, and dedication. The challenges faced include antenatal and postnatal mothers requiring leave, staff members with very young children, workplace violence, and the brain drain of trained staff. Additional challenges include risks related to accidents, radiation, and infections, mental health burdens, the need for skill updates due to technological advancements, an aging workforce, and existing knowledge gaps.

Establishing a Congenital Cardiac MRI Program at Shahid Gangalal National Heart Center

Dr. Shilpa Aryal
Department of Pediatric Cardiology

Congenital heart disease represents one of the most complex areas of cardiovascular medicine, where precise anatomical and functional assessment is critical for optimal treatment. As surgical and interventional techniques continue to advance, the need for high-quality, non-invasive three-dimensional imaging has grown significantly. In this context, cardiac magnetic resonance imaging (Cardiac MRI) has emerged worldwide as the gold standard for detailed evaluation of complex congenital heart disease.

Over the past seven to eight months, Shahid Gangalal National Heart Center has taken a major step forward by initiating a dedicated congenital cardiac MRI program, enabling advanced imaging for even the most complex pediatric and adult congenital patients.

Why Cardiac MRI is Essential in Congenital Heart Disease

While echocardiography remains the first-line imaging modality, it has limitations in complex anatomy, poor acoustic windows, and post-operative patients. Cardiac MRI complements echocardiography by providing accurate quantification of ventricular volumes and function, detailed visualization of intracardiac and great vessel anatomy, flow measurements and shunt assessment, myocardial tissue characterization, and comprehensive evaluation without ionizing radiation. These advantages make MRI particularly valuable for patients with repaired or palliated congenital heart disease who require long-term follow-up.

Our Experience at Shahid Gangalal National Heart Center

Since starting this service, we have successfully performed congenital cardiac MRI in a wide range of patients, including infants as young as three months of age. Our clinical spectrum has included post-operative congenital heart disease, single-ventricle physiology including Glenn circulation, cardiomyopathies, and complex congenital anatomy such as Double Outlet Right Ventricle, congenitally corrected transposition of the great arteries, and Ebstein's anomaly.

Impact on Clinical Care

Cardiac MRI has become an important tool for guiding patient management at

our center. It allows accurate assessment of ventricular function, evaluation of surgical pathways and conduits, and detailed visualization of complex anatomy. This information directly supports surgical planning, timing of interventions, and long-term follow-up. For children, MRI offers the added advantage of being radiation-free, making it ideal for repeated evaluations throughout life.

Looking Forward

The establishment of congenital cardiac MRI at Shahid Gangalal National Heart Center marks a significant advancement in cardiac imaging in Nepal. As our experience grows, this program will continue to enhance surgical planning, post-operative surveillance, and long-term care for congenital heart disease patients, while also contributing to academic and research development.

Conclusion

In a short period, Shahid Gangalal National Heart Center has laid a strong foundation for a comprehensive congenital cardiac MRI service. This initiative reflects our commitment to delivering modern, precise, and patient-centered cardiac care for children and adults with congenital heart disease.

Update on CPD accredited CME sessions

Dr. Amshu Shakya CPD coordinator

As a continuation of our article published in annual report two years back, we are pleased to share an update on CPD accredited CME classes conducted on a regular basis at our institution that have kept our attendees updated in the basic and advanced topics as well as procedure and techniques pertaining to cardiac care.

To add to the excellency, there is wholehearted involvement of all faculties at Shahid Gangalal National Heart Center, sharing their expert knowledge in this platform to improve the care towards the cardiac patients at this center. It ensures the medical personnel working here are better equipped to deliver quality care to their patients.

CME sessionss have been a crucial part of SGNHC routine for all members. The CME class routine that is usually published at the beginning of each month with details including topic, presenter, moderator and the department. It sets the stage for all presenters and attendees alike beaming with thirst for knowledge. While the seniors guide the presenters to deepen their understanding, colleagues and juniors solve their confusions around the topic. Particularly valuable are the discussions where the attendees share their personal experiences of triumphs or failures relevant to the topic of presentation. All these have made these CME sessions an excellent platform for professional growth. In this regard, our center has truly served its purpose as the best training ground for healthcare professionals.

Our existing Professional Verifiable CPD CMEs are free of cost and not sponsored by any commercial companies or societies. Till date, 244 CME classes have been CPD accredited at our center and three recent CMEs are awaiting accreditation. Among them, 12 were from cardiac surgery department, 13 from Paediatric cardiology department, 8 from Radiology department, 4 from anesthesiology and cardiac intensive care department, 1 from pathology department and rest from Adult Cardiology Department. Two among those classes were guest lectures from UDMNINAS Hospital about management of stroke and acute neurological emergencies.

Generally, Sunday and Monday afternoons are allocated as CME class days. Sometimes, it is extended to Wednesdays as well. Understandably, due to duty hours of doctors participation in the CME varies. This is also one of the reasons why CPD accreditation is not mandatory for continuation of licensure in our nation as government cannot provide impartial access to CPD accredited classes to all healthcare professionals. Nonetheless, provision of CPD accredited CME sessions have now established a congenial environment among all healthcare personnels to learn from each other, develop interpersonal communication skills.

As we gear up to start Mandatory verifiable CPDs this coming fiscal year with nominal fee to the participants, there are few places where we can still improve the existing CME sessions at our institution. For example, senior faculty member led CME on a regular basis, a coherent topic presentation in a month by all respective departments, adding pre-course and post-course tests to evaluate the effectiveness of the class etc.

The purpose of CME sessions per se is not CPD accreditation but to make oneself able to provide the best care to the patients in this present day by keeping oneself updated, knowledgeable and efficient through continuing medical education. Needless to mention, CPD accreditation of our CME classes is akin to fine polishing of an already strong foundation of academic excellence at our center.

Quench in MRI Scanner

IndeshThakur, Sr.CIT

Magnetic Resonance Imaging (MRI) Scanners are engineering marvels, built around superconducting magnets for first time in the year 1977, generate extremely strong and stable magnetic fields. To function correctly, these magnets must be maintained at ultra-low temperatures at around 4 Kelvin or minus 269 degree Celsius using coolant like liquid helium to preserve superconductivity of the MRI scanner's magnets.
An MRI quench is the sudden loss of superconductivity in the MRI scanner's magnet coils, causing the liquid helium coolant to rapidly boil off into gas. This event collapses the magnetic field often accompanied by a loud noise and releases large volumes of helium gas.

Causes of Quench:
1. Spontaneous (Unintentional): Due to triggering issues like critically low helium levels (less than 50%), cooling failures or cryogen leaks, ice in the magnet, mechanical shock (a tool dropped or door slam that rattles the cryostat), electrical glitch (a power surge that trips the quench protection circuit), aging superconductor etc. These are seldom dangerous but the loss of helium represents a serious expense and there is potential for damage to the magnet as well.

2. Intentional (Manual) : Activated by pressing the quench button, a prominent red button usually in the MRI console room in life -threatening emergences such as a patient pinned by a ferromagnetic object or a fire requiring safe entry for responders.
Quenching is a last resort measure because

(i) It is extremely expensive: helium refilling and magnet repairing can cost hundreds of thousands of dollars,

(ii) It cause prolonged downtime and

(iii) It can damage the magnet coils irreversibly.

Risks During Quenching:
The primary dangers stem from the helium gas release
1. Asphyxiation: Helium displaces oxygen potentially causing rapid unconsciousness or death if the MRI room fills with gas, if venting system fails.
2. Frostbite: From extremely cold gas.
3. Pressure buildup: Can make doors hard to open.
No quench related deaths or serious injuries have been widely reported in clinical settings when standard protocols are followed but the risk is real if venting fails.

Emergency Procedure During MRI Quenching :

Standard protocols emphasize rapid evacuation and ventilation and the listings are as follows :

1. Do not panic. Stay calm to act effectively.
2. Evacuate immediately.
3. Instruct everyone including patient, staff to leave the MRI room right away.
4. Assist if safe but prioritize exit.
5. Crawl low if gas is visible because oxygen settles near the floor, though helium rises.
6. Open the magnet room door and doors to the hallway/control room to ventilate and prevent buildup/gas trapping.
7. Activate emergency ventilation if available.
8. Break window carefully as a last resort because there is a risk of flying glass.
9. Close the room once evacuated.
10. Seal it off until safe.
11. Monitor oxygen levels. Rooms often have oxygen alarms and evacuate if they sound.
12. Post event

a. Notify service engineer/manufacturer,
b. Assess damage and report the incident and present to the concerned authority,
c. Do not re-enter until cleared.

Important Warning:

Never press the quench button of MRI room causally- It is for emergencies only.

Preventive Maintenance that really helps:

1. Helium level /Pressure monitoring: This should be done daily by the trained MRI technologist or MRI supervisor, if possible even in shift. If any deviation is found beyond the normal level, that should be recorded and immediately inform the MRI service engineer and MRI In-charge.
2. Vibration monitoring : This should be done on the magnet housing if suspected at any moment of time by the trained MRI technologist or MRI supervisor. If any unusual vibration is found, immediately inform the MRI service engineer.
3. Annual quench-circuit test: Where the MRI system is deliberately triggered in a controlled environment. This should be performed by vendor-only, usually.

Staff refresher meeting : This should be carried out time to time among the staffs who regularly work in the MRI unit about ‘’no-metal-in-room’’ rules and the location of the emergency vent controls and protocols.

BIOMEDICAL ENGINEERS: The Heartbeat Behind Every Hospital Device

Binita Mandal, Biomedical Engineer

Modern healthcare depends not only on skilled doctors and nurses but also on reliable medical technology. Every patient monitor, ventilator, ECG machine, defibrillator, anaesthesia workstation, and cardiac system must work accurately and safely. Ensuring this is the responsibility of biomedical engineering.

Biomedical engineering combines engineering knowledge with medical science to support healthcare services. In hospitals, biomedical engineers make sure that medical equipment is properly installed, regularly maintained, calibrated, and repaired when needed. In simple terms, they take care of the machines that healthcare professionals rely on every day for diagnosis, monitoring, and treatment.

At a cardiac care centre like Shahid Gangalal National Heart Centre, the role of biomedical engineers is especially important. Equipment downtime can directly affect patient care. By providing timely technical support, preventive maintenance, and emergency repairs, biomedical engineers help ensure uninterrupted services in critical areas such as ICU, CCU, operation theatres, and catheterization laboratories.

Biomedical engineers may not be directly involved in clinical treatment, but their work strongly supports patient safety and treatment outcomes. Accurate and well-maintained equipment helps clinicians make correct decisions and deliver timely care. Preventive maintenance also reduces sudden equipment failures and improves overall hospital efficiency.

Healthcare works best when there is good teamwork. Biomedical engineers can support clinical staff more effectively when equipment issues are reported early, devices are used as trained, and proper care is taken while handling equipment and accessories. Clear communication between users and biomedical engineers helps improve safety and extend equipment life.

During 1 year and 6 months of service at Shahid Gangalal National Heart Centre, in collaboration with the National Innovation Centre, the biomedical engineering team repaired and restored more than 1,000 medical devices. This contribution has supported continuous cardiac services and reduced dependence on external technical support.

Biomedical engineering is an essential part of modern healthcare. By ensuring that medical technology works reliably, biomedical engineers help clinicians focus on their primary goal—providing safe and effective patient care.

भुइँमान्छेको पनि अस्पताल: गङ्गालाल अस्पताल ।

डा. शम्भु खनाल

केही वर्ष अगाडि मलाई लाग्थ्यो समयमा उपचार पाउनु भाग्य हो । तर अचेल बुझ्दैछु कि समयमा उपचार प्रदान गर्नु कुनै पनि अस्पतालको क्षमता हो । त्यो संस्थाको कला हो । त्यहाँको नेतृत्वको कार्यकुशलता हो । अन्ततः कुनै पनि संस्थाको कुशल कार्यसम्पादनले सेवा प्रवाहको गुणस्तर निर्धारण गर्ने गर्छ । एक दिनको कुरा हो म एक जना बिरामीको लागि गङालाल अस्पतालको एमर्जेन्सी पुग्छु । त्यहाँ घटित दृश्य मलाई रोचक लाग्छ ।

सहिदको नामबाट राखिएको यो अस्पतालको प्रारम्भिक अनुभवले नै निकै जनप्रेमी प्रतीत भयो । सहिदको नामको पनि सम्मान भएको महसुस गरें । सहिदको एउटा सपना भनेको हरेक भुइँमान्छेले पनि समान गुणस्तरीय स्वास्थ्य सेवा प्राप्त गरोस् भन्ने पक्कै हुन्छ । सो कुराको एउटा उदाहरण गङालाल अस्पताल रहेछ।

कल्पना गर्नुहोस् तपाईं कसैलाई चिन्नुभएको छैन । तपाइँ एउटा ग्रामीण परिवेशको भुइँमान्छे हो । नेताहरुको संगत छैन । कोही पनि सानो वा ठूलो ओहदाको डाक्टरलाई चिन्नुहुन्न । कसैलाई भनसुन गर्ने ल्याकत छैन । तपाइँ निकै सामान्य मान्छे हो। यो देशको नागरिक हो । चुनावमा खोजिने फगत एउटा भोट मात्रै हो।

तपाइँलाई एक्कासी केही घण्टादेखि छाती दुख्छ । र गङालालको एमर्जेन्सी पुग्नुहुन्छ । के तपाइँको उपचार ढिलो हुन्छ भन्ने लाग्छ ? अधिकांश सरकारी कार्यालय र निजी कम्पनीका अफिसको अनुभव बोकेको व्यक्तिलाई कतै उपचारको लागि भनसुन गर्नपर्छ कि भन्ने लाग्न सक्छ । तर तपाईंको सम्स्याको जटिलताले अस्पतालको एउटा सिस्टम नै तुरन्तै जागरुक हुन्छ। त्यहाँ घट्ने परिदृश्य हेर्दा लाग्छ कि तपाइँको चिन्ता तपाईंको इश्वरले भन्दा बढी अस्पतालले चिन्ता लिइरहेको छ । एउटा कार्यसिद्धी गर्ने हुटहुटी देखिन्छ सबै संलग्न कर्मचारीमा ।

तपाईंको इ. सि. जि. तुरन्तै गरिन्छ । नर्सिङ स्टाफ त्यो इ. सि. जीमा हार्ट अट्याक पत्ता लगाउन निकै सिपालु हुने रहेछन् । उनीहरुले औषधि तुरन्तै खान दिन्छन् । र त्यहाँको ड्युटीमा रहेका डाक्टरलाई खबर गरिहाल्छन् । एमर्जेन्सीमा कार्यरत चिकित्सकले आफ्नो सिनियर चिकित्सकलाई तुरन्तै खबर गर्छन् । साथमा रोगको अवस्था र जटिलताका बारेमा बिरामीका आफन्तलाई बुझाइहाल्छन् । साथसाथै लगाइरहेको कपडा आदि तुरन्तै परिवर्तन गरिन्छ । त्यहाँ तुरन्तै **Echo** (मुटुको भिडियो एक्स रे) गर्छन् । त्यहाँबाट ट्रलीमा राखेर क्याथ ल्याबसम्म पुर्याउने कार्यालय सहयोगी ट्रली लिएर आँखा नझिम्काउँदै आइपुग्छन् । ट्रलीमा राख्न र अपरेशन कक्ष(क्याथ ल्याब) सम्म पुर्याउने कार्यालय सहयोगीहरु पनि एकाएक जुर्मुराएको देख्दा कुनै पनि कार्यालयको सुरुवात त सानो मानिने कामबाटै हुने रहेछ । जहाँ सानो देखि ठूलो पोस्टका कर्मचारी आफ्नो कार्य तुरन्तै गर्ने बानी परेको हुन्छ , त्यस्तो संस्था एउटा विधि र अनुशासनमा बसेको हुन्छ ।

बिरामीको आफन्तले सबै जोखिम र जटिलता बुझेर जे जे पर्छ उपचार गरिदिनुस् भनेर मन्जुरीनामा दिएको केही मिनेटमै क्याथ ल्याब पुर्याउन सबैजना हौसिन्छन् ।

दृश्य हेर्दा लाग्छ कि त्यहाँ जुर्मुराएका सबै कर्मचारीको आफ्नो गन्तव्यमा रमाना हुने अन्तिम

ट्रेन छुट्नै लागेको छ । हुन पनि हार्ट अट्याक भए पश्चात् प्रत्येक मिनेट हृदयका कोषिकाहरु मरिरहेका हुन्छन् । मुटुलाई रक्तसञ्चार गर्ने ब्लक भएका नशा नखोलेसम्म मुटु चिच्याइरहेको हुन्छ । व्यक्तिलाई दुखाइको रुपमा आफ्नो चित्कार सुनाइरहेको हुन्छ। इ सि जिमा मुटुले आफ्नो औडाहा र छट्पटी पोखिरहेको हुन्छ ।

त्यो समयमा पर्खाइ केवल मन्जुरीको हुन्छ । बिरामीको आफ्नो उपचार स्वयं निर्धारण गर्ने अधिकारबाट बन्चित त गर्न मिल्दैन ।

तपाइँको आफन्तको मन्जुरी पाउने बित्तिकै क्याथ ल्याबमा कार्यरत कर्मचारी सबै एकाएक जाग्छन् । यस्तो लाग्छ कि अर्कै उर्जाले दौडाउँछ । रेडियोग्राफर, नर्सिङ स्टाफ, कार्यालय सहयोगी सबैजना सरसामान जुटाएर तम्तयार बसेका हुन्छन् । साथमा चिकित्सकको तीनजनाको टोली पनि एक आपसमा सम्पर्क गरेर तयार भइसकेका हुन्छन् । जसमा जिम्मेवार व्यक्तिको रुपमा त्यस्तो हृदयघातलाई उपचार गर्ने एक जना अनुभवी कार्डियोलोजिस्ट चौबिसै घन्टा तैनाथ बसेका हुन्छन् । खबर प्राप्त भएको ५ मिनेट नबित्दै उपचारको लागि हाजिर हुने ती अनुभवी चिकित्सकप्रति विशेष सम्मान गर्नैपर्छ। साथमा दुई जना अरु चिकित्सक पनि क्याथ ल्याबमै हुन्छन् । यो प्रक्रियामा ढिलो हुने कुनै ठाउँ नै छैन । तपाईं सामान्य भुइँमान्छे भएपनि वा कुनै विशिष्ट व्यक्ति भएपनि चिकित्सक , नर्सिङ , कार्यालय सहयोगी सबै त्यसै गरी तुरन्तै खटिने गर्छन् । यो सबैजनाको दैनिकी हो । बानी हो । तर सो कार्यको लागि अतिरिक्त सुविधा भने कसैले पाउँदैनन् ।

तपाइँको मुटुमा ब्लक भएको नशा खोल्ने क्रममै सघनकक्ष पनि तयार गरिसकिएको हुन्छ । उपचार सकिने बित्तिकै ट्रलीमा मनिटरसहित सि सि यु (Coronory Care Unit) मा पुर्याइन्छ । त्यसपछि उपचार मिहिन तरिकाले चलिरहन्छ ।

मुटुका बिरामीले यत्तिको उपचार प्राप्त गर्नु पनि प्रशंसनीय कुरा हो । हार्ट अट्याकको उपचार जटिल नै हुन्छ । र त्यसमा ज्यान जाने रिस्क त हुन्छ नै । त्यस्तो जोखिमबाट बचाउन प्रयासरत रहने गङालाल अस्पतालका सम्पूर्ण व्यक्तिहरु धन्यवादका पात्र हुन् ।

यो हृदयघातको उपचारमा ढिलो हुने भनेको बिरामीको मान्छेले मन्जुरीनामा दिन ढिलो गरेमा मात्रै हो । बाँकी अरु नियमित सेवाका उपचार पनि उस्तै उदाहरणीय रहेछन् ।

संस्था बलियो सिस्टमले हुन्छ भन्ने ज्वलन्त उदाहरण यही हो। थिति र अनुशासन बसाल्न प्रयास गरौं । कार्यालय आफै मजबुत बन्छ ।

उही

दृश्यको द्रष्टा ।

(PAGE FOR FUN)

–Nira Shrestha
Staff Nurse (Post Cath)

A Love Letter of a Cardiac Nurse

प्रिय स्पन्दन !!
A V node को गतिभन्दा लामो सम्झना अनि Left Anterior Descending Artery झैं अनन्त माया !
प्यारो मुटुको धड्कन !

जुन दिन तिमीलाई मैले पहिलो पटक देखें ; त्यो बेला मेरो मुटुमा sudden AF develop भयो। जब तिमीले पनि मलाई फर्केर हेर्यौं , त्यो समय AF को rate बढ्दै गएर VT मा change भयो ; अनि HR 156bpm पुग्यो। प्रिय ! त्यो VT, VF मा change हुनुअघि मेरो साथीले मलाई ' ओइ ! के भयो? ' भनेर बोलाएपछि sinus rhythm मा self revert भयो। हाम्रा आँखा चार हुँदा बखत तिम्रा ती नशालु आँखा हरू मेरा लागि Inj Morphine भन्दा कम थिएनन् ।

Dearest ; तिमीप्रतिको मेरो चाहना भन्नु symptomatic Complete Heart Block (CHB) अनि TPI जस्तै । जसरी CHB मा TPI अपरिहार्य हुन्छ त्यस्तै मेरालागि तिमी पनि । मेरो जिन्दगीको permanent pacemaker हौ तिमी ।

प्रिय ! तिम्रो प्रेम मेरो लागि PSVT को बिरामीलाई Inj Adenosine को dose जस्तै, अचुक अनि सुनिश्चित। तिम्रो सामिप्यताले बढाउँदै लगेको मेरो धड्कन AF हुँदै जब तिम्रा ती Inj. Fentanyl भन्दा नशालु आँखाहरू मेरा आँखामा ठोक्किन पुग्छन्, तब मेरो धड्कनले VT को यात्रा पार गरेर VF को गन्तव्य तय गर्छ। तिम्रो ५०% dextrose भन्दा मधुर मुस्कानले VF ले हल्लाइरहेको मेरो मुटुलाई २०० joules को Asynchronized DC shock दिएझैं महसुस हुन्छ।

प्रिय ! तिम्रो सागर भन्दा गहिरो प्रेमरूपी DCM ले ओतप्रोत मेरो मुटुलाई एकमात्र cardiac glycoside तिम्रो प्रेमिल स्पर्श हो। तिम्रो प्रेममा बारम्बार PSVT ले ग्रसित मेरो मुटुलाई तिम्रो स्वीकृति अनि पारस्परिक प्रेमको लालमो हररूपी (EPS/RFA) गरिदिन्छौ भन्ने आशा गर्दै आजलाई बिदा ।

अशेष प्रेम अलङ्कारसहित
उही तिम्रो मुटु

PHOTOGRAPHS

ADMINISTRATION

DEPARTMENT OF ANESTHESIOLOGY

DEPARTMENT OF CARDIOLOGY

DEPARTMENT OF PATHOLOGY

DEPARTMENT OF NURSING

INISTITUTIONAL REVIEW COMITTEE

DEPARTMENT OF CARDIOVASCULAR SURGERY

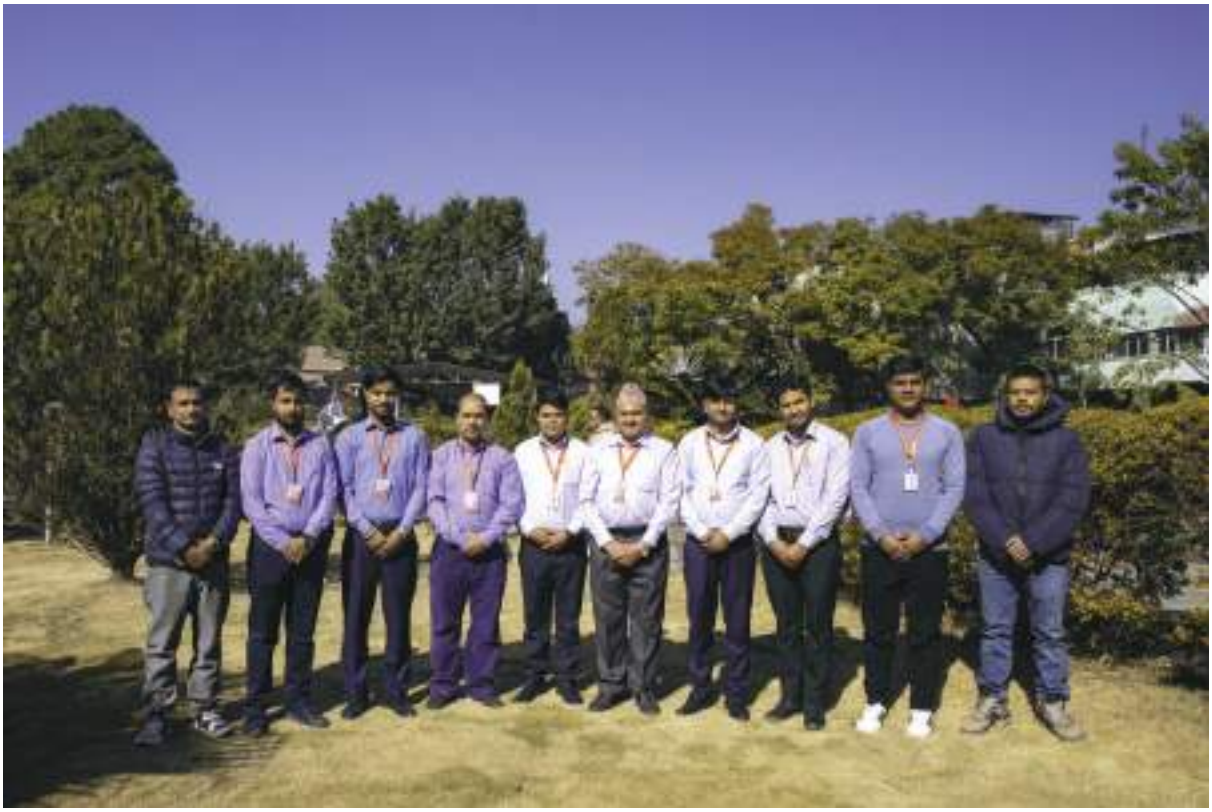
DEPARTMENT OF PEDIATRIC CARDIOLOGY

PHARMACY UNIT

DEPARTMENT OF RADIOLOGY

DEPARTMENT OF CRITICAL CARE

DEPARTMENT OF PREVENTIVE CARDIOLOGY & CARDIAC REHABILITATION



ENGINEERING AND MAINTAINANCE UNIT

TRANSPORTATION UNIT

PHYSIOTHARAPY UNIT

PERFUSION UNIT

STAFF NAME LIST

DEPARTMENT OF CARDIOVASCULAR SURGERY

SN	NAME	DESIGNATION
1	Ashok Karkee	Perfusion Assistant
2	Ashok Shah	Perfusion Assistant
3	Dr. Alka Singh	Registrar Surgery
4	Dr. Ananya Singh Bogati	Resident Doctor
5	Dr. Apurba Thakur	Registrar Surgery
6	Dr. Avash Karki	Cardiac Surgeon
7	Dr. Bishow Pokhrel	Cardiac Surgeon
8	Dr. Deepika Yadav	Resident Doctor
9	Dr. Dharmendra Joshi	Registrar Surgery
10	Dr. Jay Mangal Chaudhary	Resident Doctor
11	Dr. Kshitiz Raut	Resident Doctor
12	Dr. Marisha Aryal	Registrar Surgery
13	Dr. Navin Chandra Gautam	Sr. Consultant Cardiac Surgeon
14	Dr. Nirmal Panthee	Cardiac Surgeon
15	Dr. Nishes Basnet	Registrar Surgery
16	Dr. Nivesh Rajbhandari	Cardiac Surgeon
17	Dr. Prakrit Dhakal	Resident Doctor
18	Dr. Prakriti Thapa	Resident Doctor
19	Dr. Rabindra Bhakta Timala	Sr. Consultant Cardiac Surgeon
20	Dr. Ramesh Raj Koirala	Hod & Sr. Consultant Cardiac Surgeon
21	Dr. Rasmina Kandel	Resident Doctor
22	Dr. Rheecha Joshi	Cardiac Surgeon
23	Dr. Roshan Budhathoki	Resident Doctor
24	Dr. Sambriddha Karki	Registrar Surgery
25	Dr. Sangam K.C.	Registrar Surgery
26	Dr. Sidhartha Pradhan	Sr. Consultant Cardiac Surgeon
27	Dr. Sumit Kumar Mandal	Resident Doctor
28	Dr. Vivek Kumar Jha	Registrar Surgery
29	Dr.Manash Puri	Resident Doctor
30	Lalita Shakya	Perfusionist
31	Laxmi Shrestha(Bhattarai)	Sr. Perfusion Assistant
32	Sujan Shrestha	Perfusion Assistant
33	Umesh Khan	Perfusionist

DEPARTMENT OF CARDIOLOGY

SN	NAME	DESIGNATION
1	Dr. Abhishek Singh	Resident Doctor
2	Dr. Amrit Basnet	Resident Doctor
3	Dr. Ananda Khanal	Registrar Cardiologist
4	Dr. Anil Basnet	Resident Doctor
5	Dr. Anjana Acharya	Registrar Cardiologist
6	Dr. Arun Maskey	Sr. Consultant Cardiologist

SN	NAME	DESIGNATION
7	Dr. Ayush Khadka	Resident Doctor
8	Dr. Barkadin Khan Miya	Registrar Cardiologist
9	Dr. Bibek Baniya	Registrar Cardiologist
10	Dr. Bimal Gyawali	Resident Doctor
11	Dr. Binay Kumar Rauniyar	Consultant Cardiologist
12	Dr. Birat Krishna Timalsena	Cardiologist
13	Dr. Bishal Timalsena	Resident Doctor
14	Dr. Chandramani Adhikari	Consultant Cardiologist
15	Dr. Darshan Kumar Gurung	Registrar Cardiologist
16	Dr. Deepak Limbu	Cardiologist
17	Dr. Dipak Raj Baral	Registrar Cardiologist
18	Dr. Dipanker Prajapati	HOD &Consultant Cardiologist
19	Dr. Dipson Hamal	Resident Doctor
20	Dr. Himamshu Nepal	Sr. Consultant Cardiologist
21	Dr. Himanshu Malla	Resident Doctor
22	Dr. Isha Sharma	Resident Doctor
23	Dr. Kartikesh Kumar Thakur	Consultant Cardiologist
24	Dr. Md. Sajjad Safi	Registrar Cardiologist
25	Dr. Milan Kumar Neupane	Resident Doctor
26	Dr. Murari Dhungana	Consultant Cardiologist
27	Dr. Nishan Rana Magar	Resident Doctor
28	Dr. Parash Koirala	Cardiologist
29	Dr. Prasanna Bhattarai	Resident Doctor
30	Dr. Rabi Malla	Executive Director
31	Dr. Rabindra Pandey	Cardiologist
32	Dr. Rabindra Simkhada	Consultant Cardiologist
33	Dr. Ravi Sahi	Registrar Cardiologist
34	Dr. Reeju Manandhar	Cardiologist
35	Dr. Rikesh Tamrakar	Consultant Cardiologist
36	Dr. Rubin Shrestha	Resident Doctor
37	Dr. Sabindra Bhupal Malla	Registrar Cardiologist
38	Dr. Sandhya Khadka	Resident Doctor
39	Dr. Sangam Bhandari	Resident Doctor
40	Dr. Sanjay Singh K.C.	Cardiologist
41	Dr. Sanjida Ansari	Registrar Cardiologist
42	Dr. Satish Kumar Singh	Cardiologist
43	Dr. Shahid Murtuza	Registrar Cardiologist
44	Dr. Shova Basnet	Registrar Cardiologist
45	Dr. Subodh Bir Singh Kansakar	Sr. Consultant Cardiologist
46	Dr. Sujeeb Rajbhandari	Sr. Consultant Cardiologist
47	Dr. Suman Shrestha	Resident Doctor
48	Dr. Surakshya Joshi	Cardiologist
49	Dr. Sushant Ghimire	Resident Doctor
50	Dr. Sushil Joshi	Resident Doctor
51	Dr. Uma Karki	Resident Doctor

DEPARTMENT OF ANESTHESIOLOGY

SN	NAME	DESIGNATION
1	Dr. Abhay Khadka	Registrar Anesthesiologist
2	Dr. Aradhana Jha	Resident Doctor
3	Dr. Ashish G. Amatya	HoD & Consultant Anesthesiologist
4	Dr. Ranish Shrestha	Registrar Anesthesiologist
5	Dr. Rukesh Kumar Yadav	Resident Doctor
6	Dr. Sandip Bhandari	Anesthesiologist
7	Dr. Santosh Sharma Parajuli	Registrar Anesthesiologist
8	Dr. Smriti Mahaju Bajracharya	Anesthesiologist

DEPARTMENT OF CRITICAL CARE

SN	NAME	DESIGNATION
1	Dr. Battu Kumar Shrestha	Hod & Anesthesiologist
2	Dr. Kul Ratna Thapa	Peaditric Critical care Registrar
3	Dr. Subigya Sitaula	Registrar Anesthesiologist
4	Dr. Rabin Sundar Shrestha Taksari	Registrar Anesthesiologist
5	Dr. Sanjeep Ranjitkar	Registrar Anesthesiologist
6	Dr. Nischal Bhetuwal	Registrar Critical Care
7	Dr. Prajwol Bhattarai	Registrar Critical Care
8	Dr. Rajesh Kumar Pandey	Registrar Critical Care
9	Dr. Sumeru Acharya	Resident Doctor
10	Dr. Simran Bam	Resident Doctor
11	Dr. Anouska Basnet	Resident Doctor
12	Dr.Aarju Malla	Resident Doctor

DEPARTMENT OF PEDIATRIC CARDILOGY

SN	NAME	DESIGNATION
1	Dr. Anmol Sharma	Resident Doctor
2	Dr. Amshu Shakya	Peaditric Registrar
4	Dr. Manish Shrestha	Hod & Consultant Pediatric Cardiologist
5	Dr. Prayutsu Pokharel	Resident Doctor
6	Dr. Purnima Shakya	Resident Doctor
7	Dr. Ranjana Bista	Peaditric Registrar
8	Dr. Sadikshya Pandey	Peaditric Registrar
9	Dr. Shilpa Aryal	Peaditric Cardiologist
10	Dr. Subhash Chandra Shah	Peaditric Cardiologist
11	Dr. Vidhata Bhandari K.C	Peaditric Registrar

DEPARTMENT OF PREVENTIVE CARDIOLOGY & CARDIAC REHABILITATION

SN	NAME	DESIGNATION
1	Dr. Amrit Bogati	Cardiologist
2	Dr. Dharma Nath Yadav	HoD & Consultant Cardiologist (Preventive)
3	Rajeev Kumar Yadav	Physiotherap Assistant
4	Dr. Shaili Thapa	Sr. Cardiac Physiotherapist
5	Suraksha Dhungana	Sr. Staff Nurse
6	Januka khadka	Sr. Staff Nurse
7	Yashoda Luitel	Sr. Physiotherap Assistant

DEPARTMENT OF NURSING

SN	NAME	DESIGNATION
1	Aakriti Baidhya	Staff Nurse
2	Aarati Dhungana	Staff Nurse
3	Aarati Tiwari	Staff Nurse
4	Aarusha Luitel	Staff Nurse
5	Aashma Shrestha	Staff Nurse
6	Abhigya Karki	Staff Nurse
7	Aditi Pant Timilsina	Staff Nurse
8	Ajay Kumar Gupy	Staff Nurse
9	Alisha Thapa	Staff Nurse
10	Ambika Shrestha	Staff Nurse
11	Amisha Adhikari	Staff Nurse
12	Amrita Ghimire	Staff Nurse
13	Amrita Paudel	Staff Nurse
14	Anita Baram	Staff Nurse
15	Anita Dawadi	Staff Nurse
16	Anita Sharma Paudel	Staff Nurse
17	Anjana Gurung	Staff Nurse
18	Anjana Koirala	Sister
19	Anjana Sharma	Staff Nurse
20	Ankita Shrestha	Staff Nurse
21	Ansha Maharjan	Staff Nurse
22	Anu Tamang	Staff Nurse
23	Anuja Koirala	Staff Nurse
24	Anusha Humagain	Staff Nurse
25	Anusha Shrestha	Staff Nurse
26	Anushka Khand	Staff Nurse
27	Anushree Paudel	Staff Nurse
28	Apurwa Sawad	Staff Nurse
29	Aruna Ghising	Staff Nurse
30	Aruna Khatri	Staff Nurse
31	Aruna Maharjan	Staff Nurse
32	Asha Kumari Jha	Staff Nurse

SN	NAME	DESIGNATION
33	Ashik Tharu	Staff Nurse
34	Ashmita Bajgain	Staff Nurse
35	Ashmita Bhattarai	Staff Nurse
36	Ashmita Sapkota	Staff Nurse
37	Ashmita Shrestha A	Staff Nurse
38	Ashmita Thapa	Staff Nurse
39	Ashruta Rizal	Staff Nurse
40	Asmita Devkota	Staff Nurse
41	Asmita Karki	Staff Nurse
42	Asmita Lamichhane	Staff Nurse
43	Asmita Lamichhane B	Staff Nurse
44	Asmita Maharjan	Staff Nurse
45	Asmita Sapkota	Staff Nurse
46	Asmita Shrestha(B)	Staff Nurse
47	Babita dhungana	Staff Nurse
48	Bal Kumari Chaudhary	Staff Nurse
49	Bandana Bogati	Staff Nurse
50	Bandana Sankhi	Staff Nurse
51	Barsha Ghimire	Staff Nurse
52	Barsha Ingnam	Staff Nurse
53	Barsha Pokhrel	Staff Nurse
54	Beejina Shrestha	Staff Nurse
55	Beena Phanju	Staff Nurse
56	Bhawana Bista	Staff Nurse
57	Bidhya Malla	Staff Nurse
58	BIDUSHI DHITAL DAHAL	Staff Nurse
59	Bidya Dhungana	Staff Nurse
60	Bina Sherpa	Staff Nurse
61	Bina Shrestha	Staff Nurse
62	Binda Shrestha	Staff Nurse
63	Bindiya Shrestha	Staff Nurse
64	Bindu Khaptari Thapa	Staff Nurse
65	Binita Sapkota	Sr. Staff Nurse
66	Binita Tamrakar	Sr. Staff Nurse
67	Bishmita Chauhan	Staff Nurse
68	Bishnu Pandey	Nursing Supervisor
69	Chadani G.C	Staff Nurse
70	Chahana Singh	Staff Nurse
71	Chandani Shah	Staff Nurse
72	Chandrakala Jirel	Staff Nurse
73	Deena Prajapati	Staff Nurse
74	Deepa Tami	Staff Nurse
75	Deepa Kumari Acharya	Staff Nurse
76	Deepa Kumari Lama	Staff Nurse
77	Deepali Bogati	Staff Nurse

SN	NAME	DESIGNATION
78	Deepane Dahal	Staff Nurse
79	Deepika Shrestha	Staff Nurse
80	Deoki Saru	Nursing Supervisor
81	Diksha Gautam	Staff Nurse
82	Dikshya Guragai	Staff Nurse
83	Dikshya Karki	Staff Nurse
84	Divya Adhikari	Staff Nurse
85	Divya Shrestha	Staff Nurse
86	Durga Dhamala	Staff Nurse
87	Eliza Paudel	Staff Nurse
88	Ereeka Bhandari	Staff Nurse
89	Eva maden	Staff Nurse
90	Goma Gurung	Staff Nurse
91	Isha Lama	Staff Nurse
92	Isha Pradhan	Staff Nurse
93	Janaki Ayer	Sr. Staff Nurse
94	Januka khadka	Sr. Staff Nurse
95	Jaya Thapa	Staff Nurse
96	Jayanti Karki	Staff Nurse
97	Jeba Shrestha	Staff Nurse
98	Jeny K.c	Staff Nurse
99	Jina KC	Staff Nurse
100	Jyoti Dumaru	Staff Nurse
101	Jyoti Kunwar	Staff Nurse
102	Jyoti Rimal	Staff Nurse
103	Jyoti Shrestha	Staff Nurse
104	Jyoti Thapa	Staff Nurse
105	Kabita Baniya	Staff Nurse
106	Kabita Khatri	Staff Nurse
107	Kabita Shrestha	Staff Nurse
108	Kalpana D.C	Staff Nurse
109	Kalpana Lamsal	Staff Nurse
110	Kalpana Timilisina(B)	Staff Nurse
111	Kalpana Timilsina(A)	Nursing Supervisor
112	Kalpana Thapa Magar	Staff Nurse
113	Kamana Paudel	Staff Nurse
114	Kanchan Bista	Staff Nurse
115	Kanchan Kusatha	Staff Nurse
116	Karishma Kunwar	Staff Nurse
117	Kirtika Karanjit	Staff Nurse
118	Kopila Luitel	Sr. Nursing Supreviser
119	Krishna Shwari Gwachha	Sr. Staff Nurse
120	Krishna Kumari Sapkota	Staff Nurse
121	Lalita Maharjan	Nursing Supervisor
122	Lalita Maharjan(B)	Staff Nurse

SN	NAME	DESIGNATION
123	Lalita Poudel	Sister
124	Laxmi Aryal	Staff Nurse
125	Laxmi B.C	Staff Nurse
126	Laxmi Bista	Staff Nurse
127	Laxmi Dangol	Staff Nurse
128	Laxmi Kumari Pathak	Staff Nurse
129	Laxmi Kumari Sah	Staff Nurse
130	Lila Laxmi Dhami	Staff Nurse
131	Madhushree Khanal	Staff Nurse
132	Mamata Ojha	Sister
133	Man kumari Shrees Thapa	Sister
134	Mandira Khadka(N)	Staff Nurse
135	Mandira Sunuwar	Staff Nurse
136	Manika Tamang	Staff Nurse
137	Manisha Kunwar	Staff Nurse
138	Manisha Thapa	Staff Nurse
139	Manita Karki	Staff Nurse
140	Manita Parajuli Ghimire	Staff Nurse
141	Manju Acharya	Staff Nurse
142	Manju Khadka	Staff Nurse
143	Manju Pyakurel	Staff Nurse
144	Manju Timilsina	Nursing Supervisor
145	Meena K.C	Sr. Staff Nurse
146	Meera Tamang	Staff Nurse
147	Melina K.C	Staff Nurse
148	Melina Karmacharya	Staff Nurse
149	Merina Dhungana	Staff Nurse
150	Monica Thapaliya	Staff Nurse
151	Monika Rijal	Staff Nurse
152	Mukta Shrestha	Staff Nurse
153	Muna Baniya	Staff Nurse
154	Muna Lama Tamang	Staff Nurse
155	Namrata Rawal	Staff Nurse
156	Natasha Shakya	Staff Nurse
157	Nidhika Giri	Staff Nurse
158	Nira Shrestha	Staff Nurse
159	Nisha Bangshi Magar	Staff Nurse
160	Nisha Kusum Rai	Staff Nurse
161	Nisha Thapa Magar	Staff Nurse
162	Nita Dangol	Chief Nursing Superviser
163	Niva Maharjan	Staff Nurse
164	Pabitra Duwadee	Staff Nurse
165	Pooja Bashyal	Staff Nurse
166	Pooja Kunwar	Staff Nurse
167	Pooja Pandit	Staff Nurse

SN	NAME	DESIGNATION
168	Pooja Shrestha	Staff Nurse
169	Pooja Subedi	Staff Nurse
170	Poonam Gurung	Staff Nurse
171	Prabha Karki	Staff Nurse
172	Prabha Khadka	Staff Nurse
173	Prabha Paudel	Staff Nurse
174	Pragnya Sharma	Staff Nurse
175	Pragya K.c	Staff Nurse
176	Pragya Subedi	Staff Nurse
177	Prajita Shrestha	Staff Nurse
178	Prajwala Baniya	Staff Nurse
179	Prakriti Medhasi	Staff Nurse
180	Prakriti Paudel	Staff Nurse
181	Pramila Shrestha	Staff Nurse
182	Pramila Subedi	Staff Nurse
183	Prapti Shrestha	Staff Nurse
184	Prasanna Shrestha	Staff Nurse
185	Prashida Dahal	Staff Nurse
186	Pratibha Thapa	Staff Nurse
187	Pratiksha Ghimire	Staff Nurse
188	Pratikshya Thokar	Staff Nurse
189	Pratima Barma	Staff Nurse
190	Pratima Dhakal	Staff Nurse
191	Pratima Niraula	Staff Nurse
192	Pratistha Bhattarai	Staff Nurse
193	Prekshya Pathak	Staff Nurse
194	Prekshya Shakya	Staff Nurse
195	Priety Adhikari	Staff Nurse
196	Prittam Maharjan	Staff Nurse
197	Priya Bhujel	Staff Nurse
198	Priyanka Shah	Staff Nurse
199	Puja Dahal	Staff Nurse
200	Puja Kafle	Staff Nurse
201	Puja Satyal	Sr. Staff Nurse
202	Puja Tamang	Staff Nurse
203	Puja Thapa Magar	Staff Nurse
204	Punam Rai	Staff Nurse
205	Punam Shrestha	Staff Nurse
206	Pusham Rai	Staff Nurse
207	Pushpa Neupane	Sister
208	Puspa Karmacharya	Staff Nurse
209	Puspa Kumari Gurung	Sr. Staff Nurse
210	Rabina Ghimire	Staff Nurse
211	Radha Maharjan	Staff Nurse
212	Raj Kumari Shrestha	Sr. Staff Nurse

SN	NAME	DESIGNATION
213	Rajita Khadka	Staff Nurse
214	Rajyalaxmi Bhele	Sister
215	Rakshya Karki	Staff Nurse
216	Rama Sharma	Staff Nurse
217	Ramala Maharjan	Staff Nurse
218	Rameswori Duwal	Sr. Staff Nurse
219	Rashmee Rai	Staff Nurse
220	Rashmi Basnet	Staff Nurse
221	Rashmila Manandhar	Sr. Staff Nurse
222	Ravina Subedi	Staff Nurse
223	Reena Rimal	Staff Nurse
224	Renu Shrestha	Staff Nurse
225	Renuka Shrestha	Staff Nurse
226	Reshma Thapa	Sr. Staff Nurse
227	Reshmi Bade	Staff Nurse
228	Reshu Thakuri	Staff Nurse
229	Richa Dangol	Staff Nurse
230	Richa Khadka	Staff Nurse
231	Richa Yogi	Staff Nurse
232	Rimsha Shrestha	Staff Nurse
233	Rinku Pandit	Staff Nurse
234	Risha Manandhar	Staff Nurse
235	Ritu Sinjali	Staff Nurse
236	Ritu Subedi	Staff Nurse
237	Ritu Swongamikha	Staff Nurse
238	Roji Shakya	Nursing Supervisor
239	Roshana Twayana	Staff Nurse
240	Roshani Manandhar	Staff Nurse
241	Roshani Shahi	Staff Nurse
242	Roshni Rauniyar	Staff Nurse
243	Rubina Prasai	Staff Nurse
244	Ruby Shrestha	Staff Nurse
245	Rumina Dhakal	Staff Nurse
246	Sabina Baral	Staff Nurse
247	Sabina Khatri	Staff Nurse
248	Sabina Mishra	Staff Nurse
249	Sabina Parajuli	Staff Nurse
250	Sabina Shrestha(A)	Staff Nurse
251	Sabina shrestha(B)	Sister
252	Sabina Thimi	Staff Nurse
253	Sabina Tuladhar	Staff Nurse
254	Sabina Tulsibakhyo	Staff Nurse
255	Sabita Bhusal	Staff Nurse
256	Sabita Karki	Staff Nurse

SN	NAME	DESIGNATION
257	Sagun Sharma	Staff Nurse
258	Sajana Twayana	Staff Nurse
259	Sajanee Pradhan	Staff Nurse
260	Sakuntala Karki	Staff Nurse
261	Salina Shrestha	Staff Nurse
262	Samiksha Bhatta	Staff Nurse
263	Samiksha Thapa	Staff Nurse
264	Samiksha Wasti	Staff Nurse
265	Samiksha Yadav	Staff Nurse
266	Samikshya Bhandari	Staff Nurse
267	Samita Thapa Magar	Staff Nurse
268	Samjana Mishra	Staff Nurse
269	Samjhana Karmacharya	Staff Nurse
270	samjhana Limbu	Staff Nurse
271	Samriddhi Timalsina	Staff Nurse
272	Sandhya acharya	Staff Nurse
273	Sandhya Bista	Staff Nurse
274	Sandhya Paudel	Staff Nurse
275	Sandhya Rijal	Staff Nurse
276	Sandhya Shrestha	Staff Nurse
277	Sandhya Thapa	Staff Nurse
278	Sangeeta Tamang	Staff Nurse
279	Sangita Baskota	Staff Nurse
280	Sangita Kafle	Sr. Staff Nurse
281	Sangita Lama	Staff Nurse
282	Sanjeeta Baskota	Staff Nurse
283	Sanjita Dhakal	Staff Nurse
284	Sanju Gautam	Staff Nurse
285	Sanju Shah	Staff Nurse
286	Santa Pandey	Staff Nurse
287	Sapana Maharjan	Sister
288	Saphala Pandey	Staff Nurse
289	Sarala Bajracharya	Staff Nurse
290	Sarala Malla	Staff Nurse
291	Sarina Gurung	Staff Nurse
292	Sarina Basu Shrestha	Staff Nurse
293	Sarita G.C	Staff Nurse
294	Sarita K.c	Staff Nurse
295	Sarita Maharjan (A)	Staff Nurse
296	Sarita Maharjan(B)	Staff Nurse
297	Sarmila Dong	Staff Nurse
298	Shailaja Paudel Regmi	Staff Nurse
299	Shailee Karanjit	Sr. Staff Nurse
300	Shakuntala Mahat	Staff Nurse
301	Shanta Singh Thakuri	Sr. Staff Nurse
302	Shanti Bhele	Staff Nurse
303	Shanti Gautam	Staff Nurse

SN	NAME	DESIGNATION
304	Shanti Gurung	Staff Nurse
305	Sharmila Neupane	Staff Nurse
306	Sharmila Thapa	Sr. Staff Nurse
307	Shirsi Phuyal	Staff Nurse
308	Shonal Rai	Staff Nurse
309	Shova Shrestha	Staff Nurse
310	Shovana Shrestha	Sister
311	Shovna Shrestha	Sr. Staff Nurse
312	Shraddha Bade	Staff Nurse
313	Shradha Shah	Staff Nurse
314	Shreejana Dhital	Staff Nurse
315	Shreejana Gautam	Staff Nurse
316	Shreesti Kharel	Staff Nurse
317	Shristi Niroula	Staff Nurse
318	Shristi Shrestha	Sister
319	Shristi Thakuri	Staff Nurse
320	Shriya Poudel	Staff Nurse
321	Shubha Gyawali	Staff Nurse
322	Siba Laxmi Shrestha	Sr. Staff Nurse
323	Sima Shahi	Staff Nurse
324	Simran Sigdel	Staff Nurse
325	Sinnal Raut	Staff Nurse
326	Sirjana Adhikari(A)	Staff Nurse
327	Sirjana Paudel	Staff Nurse
328	Sital Mishra	Staff Nurse
329	Smita Pun	Staff Nurse
330	Smritee Bhattarai	Staff Nurse
331	smriti Chapagain	Staff Nurse
332	Sonu Thapa	Staff Nurse
333	Sreejana Poudyal	Staff Nurse
334	Srijana Aryal	Staff Nurse
335	Srijana Bhele	Staff Nurse
336	Srijana Khadka	Staff Nurse
337	Srijana Tiwari(B)	Staff Nurse
338	Subhasini Adhikari	Staff Nurse
339	Subrana K.C	Staff Nurse
340	Suchi Yang Tamang	Staff Nurse
341	sudha K.c(Khatri)	Staff Nurse
342	Sudiksha Koirala	Staff Nurse
343	Sujan G.C.	Staff Nurse
344	Sujata Ghimire	Staff Nurse
345	Sujata K.c	Staff Nurse
346	Sujata Simkhada	Staff Nurse
347	Sujina Pathak	Staff Nurse
348	Sulochana Khadka	Staff Nurse
349	Sunita Basnet	Staff Nurse
350	Sunita Khadka	Nursing Supervisor

SN	NAME	DESIGNATION
351	Sunita Pandey	Staff Nurse
352	Sunita Shrestha	Staff Nurse
353	Sunita Pun Magar	Staff Nurse
354	Supriya Hamal	Staff Nurse
355	Supriya Ranjitkar	Staff Nurse
356	Suraksha Dhungana	Sr. Staff Nurse
357	Sushila Maharjan	Staff Nurse
358	Sushila Shrestha	Staff Nurse
359	Sushma Kunwar	Staff Nurse
360	Sushma Thakuri	Staff Nurse
361	Sushmita Baral	Staff Nurse
362	Susma Baram	Staff Nurse
363	Susmita Sharma	Staff Nurse
364	Susmita Thapa Magar	Staff Nurse
365	Sweta Koirala	Staff Nurse
366	Tara Tamang	Staff Nurse
367	Tika Devi Thapa	Staff Nurse
368	Tripti Singh	Staff Nurse
369	Tulasa Pandey	Staff Nurse
370	Tulasha Naupane	Staff Nurse
371	Uma Thapa	Staff Nurse
372	Urmila Shrestha	Staff Nurse
373	Usha Ghimire	Staff Nurse
374	Usha Paudel	Sr. Staff Nurse
375	Ushna Shrestha	Sr. Staff Nurse
376	Vidhya Joshi Koirala	HoD & Sr. Nursing Supreviser
377	Yogina Maharjan	Sr. Staff Nurse

ADMINISTRATION

SN	NAME	DESIGNATION
1	Arjun Giri	Administrative Sub- Assistant
2	Bhagawati Gaire	Sr. Administrative Assistant
3	Bhagwan Karki	Sr. Overseer
4	Bhai Narayan Maharjan	Driver III(Star Bridhi)
5	Bharat Bahadur Khadka	Driver III(Star Bridhi)
6	Bhej Bahadur Moktan	Driver III(Star Bridhi)
7	Bhogendra Narayan Shah	Sub- Overseer
8	Bhupal Acharya	Sr. Administrative Officer
9	Biju Kuwar Chhetri	Office Helper II
10	Bikash Khaniya	Sr. Administrative Assistant
11	Bimala Aryal	HoD & Dy Chief Administration
12	Bimala Sapkota	Administrative Assistant II (Star Bridhi)
13	Bishwo Ram Adhikari	Plumber III(Star Bridhi)
14	Chunam Lama	Administrative Officer
15	Dinesh Maharjan	Plumber
16	Gauri Devi Sharma	Office Helper III

SN	NAME	DESIGNATION
17	Goma Parajuli Panthi	Administrative Assistant
18	Guna Devi Acharya	Administrative Assistant
19	Gyan Kaji Maharjan	Driver III(Star Bridhi)
20	Jeet Bahadur Tamang Moktan	Administrative Sub- Assistant
21	Kabita Koirala Khatiwada	Administrative Assistant
22	Kamala Gautam	Office Helper III
23	Krishna Bahadur Budhathoki	Driver IV (Star Bridhi)
24	Krishna Kumar Ray	Overseer
25	Laxmi Prasad Rijal	Administrative Assistant
26	Mahendra Lamsal	Sr. Administrative Assistant
27	Mandira Khadka	Administrative Sub- Assistant
28	Narayan Panthi	Sub- Overseer
29	Nawaraj Roka	Sub- Overseer
30	Pitambar Bahadur Bhujel	Driver III(Star Bridhi)
31	Pratima Malla Thakuri	Sr. Administrative Assistant
32	Rabi Malla	Executive director
33	Raj Kumar Roka	Sub- Overseer
34	Rup Bdr Thapa	Driver III(Star Bridhi)
35	Sadhuram Pandit Chhetri	Driver III(Star Bridhi)
36	Santosh Parajuli	Administrative Sub- Assistant
37	Shanti KC	Office Helper III
38	Sharada Khanal	Office Helper IV
39	Shivnath Mahto	Administrative Sub- Assistant
40	Sudarsan Prasain	Administrative Assistant
41	Sudha Sigdel	Administrative Sub- Assistant
42	Sudip Chandra Dahal	Medical Record Officer
43	Sushil Bhusal	Administrative Officer
44	Sushila Bista	Office Helper III
45	Uvaraj Timilsina	Sr. Administrative Assistant
46	Yagya Bahadur Khulal	Driver III(Star Bridhi)

FINANCE

SN	NAME	DESIGNATION
1	Bibek Thapa	Sr. Account Assistant
2	Bindu Khanal	Account Sub- Assistant
3	Krishna Bahadur Kumal	Account Sub- Assistant
4	Manoj Kumar Bista	HoD & Chief Financial Administration
5	Milan K.C	Account Sub- Assistant
6	Naresh Chipalu	Sr. Finance Officer
7	Neeru Dahal	Sr. Account Assistant
8	Sanjay Maharjan	Sr. Account Assistant

PATHOLOGY

SN	NAME	DESIGNATION
1	Ajita Lamichhane	Lab Technician
2	Aryatara Shilpakar	Sr. Med. Lab Technologist
3	Bibek Raj Bhattarai	Lab Technician
4	Bijaya Kumar Thakur	Lab Technician
5	Bikash Bhusal	S.r Lab Technician
6	Binod Kumar Yadav	Sr Medical Lab Technologist
7	Chandrama Sharma	Lab Technician
8	Daltan Dahal	Lab Technician
9	Dipendra Khadka (B)	Lab Technician
10	Dr. Sobita Khadka	Registrar Pathologist
11	Gaurab Risal	Lab Technician
12	Gita Shrestha	Lab Technician
13	Karna B.K	Lab Technician
14	Keshav Acharya	Lab Technician
15	Nabina Adhikari	Lab Technician
16	Nawal Kishor Yadav	Sr Lab Technician
17	Nita Gwachha	Lab Technician
18	Pabitra Bista	Medical Lab Technologist
19	Pradeep Khanal	S.r Lab Technician
20	Pranila Chitrakar	Lab Technician
21	Prasamsha Adhikari	Lab Technician
22	Rajnarayan Mishra	Sr Lab Technician
23	Renu Shakya	Medical Lab Technologist
24	Ritu Karki	Lab Technician
25	Sugrib Shrestha	Lab Technician
26	Suresh Kumar Gupta	Sr Lab Technician
27	Sushila Shrestha	Lab Technician
28	Unnati Kadel	Lab Technician

PHARMACY

SN	NAME	DESIGNATION
1	Asmita Thapa	Pharmacy Assistant
2	Atmaram Timalsina	Pharmacist
3	Devendra Yadav	Sr. Health Assistant
4	Indrajit Yadav	Sr. Health Assistant
5	Jaykishor Shah	Sr. Health Assistant
6	Kamal Bahadur Rana	Sr. Pharmacy Assistant
7	Madhu Giri	Sr. Hospital Pharmacist
8	Manoj Kumar Yadav	Sr. Health Assistant
9	Nabina Thapa	Pharmacy Assistant
10	Niru Ratyal	Sr. Health Assistant
11	Prem Raj K.C.	Sr. Pharmacy Assistant

SN	NAME	DESIGNATION
12	Ramisa Tamang	Pharmacy Assistant
13	Rita Chapain	Pharmacy Assistant
14	Shunil Acharya	Sr. Pharmacist
15	Sushmita Timalsina	Pharmacy Assistant
16	Upama Parajuli	Sr. Pharmacy Assistant

RADIOLOGY

SN	NAME	DESIGNATION
1	Anup Rimal	Radiographer
2	Baidh Nath Yadav	Sr. Radiography Technologist
3	Bijaya Shrestha	Sr. Radiographer
4	Dr. Asim Babu Sitaula	Registar Radiologist
5	Dr. Kritisha Rajlawot	Registar Radiologist
6	Dr. Manisha Aryal	Registar Radiologist
7	Dr. Nirmal Prasad Neupane	HoD & Radiologist
8	Himani Kumari Upadhyay	Radiographer
9	Indesh Thakur	Sr. Cardiac Imaging Technologist
10	Laxminarayan Singh	Sr. Radiographer
11	Niraj Kumar Chaudhary	Radiographer
12	Prakash Timalsina	Radiographer
13	Pramod Khatri	Sr. Radiographer
14	Raj Shekhar Yadav	Radiographer
15	Rajan Shrestha	Radiographer
16	Ramesh Thapa	Dark Room Assistant III(Star Bridhi)
17	Saru Gosain	Radiographer
18	Sebika Baniya Pandit	Radiographer
19	Seema Gyawali	Sr. Radiographer
20	Shankar Budhathoki	Radiographer
21	Shulav Paudel	Sr. Radiography Technologist
22	Shyam Kumar Adhikari	Sr. Radiographer
23	Shyam Thakur	Radiography Technologist
24	Sriju K C	Radiographer
25	Sunita Khawaju	Radiographer

NOTE