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मा. खगराज अधिकारी
स्वास्थ्य तथा जनसंख्या मन्त्री



स्वास्थ्य तथा जनसंख्या मन्त्रीज्यूको

नीजि सचिवालय

रामशाहपथ, काठमाडौं, नेपाल ।

फोन : ४-२६२५३४

फ्याक्स : ४-२६२५६५

मिति : २०७१/१०/०२

पत्र संख्या :-
चलानी नं. :-

विषय :-

शुभ-कामना



नेपाल सरकारको राष्ट्रिय स्वास्थ्य नीतिअनुरूप स्वदेशमा नै विशिष्ट स्वास्थ्य सेवाहरू अत्याधुनिक उपचार पद्धतिद्वारा क्रमशः उपलब्ध गराउदै लैजाने उद्देश्य अनुरूप हृदयरोगको निदान, उपचार तथा हृदयरोगीको पुनर्स्थापना सर्वसुलभरूपमा उपलब्ध गराउन तथा हृदयरोगसम्बन्धी उच्चस्तरीय अध्ययन र अनुसन्धानका लागि आवश्यक दक्ष जनशक्ती तयार पार्न गठन भएको त्यस शहीद गंगालाल राष्ट्रिय हृदय केन्द्रले आफ्नो उद्देश्य प्राप्तितर्फ हालसम्म खेलेको भूमिकालाई म हार्दिक सराहना गर्दछु ।

विश्वव्यापीरूपमा मुटुसम्बन्धी रोगबाट करोडौं मानिसहरू प्रभावित हुदै आएका छन् र लाखौं मानिसहरूले अकालमै आफ्नो जीवन गुमाइरहेको छन् । हाम्रो देशमा पनि मुटुरोगको समस्या दिनानुदिन बढ्दै आइरहेको वर्तमान अवस्थामा यसको उपचार, निदान र रोकधाममा त्यस केन्द्रले खेलेको भूमिका अतुलनीय रहेको छ ।

केन्द्रले आफ्ना गतिविधिहरूको जानकारी गराउने उद्देश्यले स्थापनाको १९ औं वार्षिकोत्सवको अवसरमा स्मारिका प्रकाशन गर्न लागेकोमा खुसी व्यक्त गर्दै मुटुरोगको उपचारमा विशिष्ट र गुणस्तरीय स्वास्थ्य सेवा प्रदान गरी मुटुरोगीहरूलाई विदेशमा जानुपर्ने बाध्यताबाट पूर्णरूपमा मुक्ति दिलाई राष्ट्रिय प्रशंण केन्द्रको रूपमा स्थापित हुनेछ भन्ने विश्वास लिएको छु । आगामी दिनमा केन्द्रको थप प्रगति एवं सफलताको निमित्त हार्दिक शुभकामना व्यक्त गर्दछु ।

खगराज अधिकारी

मन्त्री



नेपाल सरकार
स्वास्थ्य तथा जनसंख्या मन्त्रालय

(.....शाखा)

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४२२३५८०

फोन नं.

प्राप्त पत्र संख्या :-

पत्र संख्या

चलानी नं. :-

रामशाहपथ,
काठमाडौं, नेपाल ।

मिति :- २०७१/१०/०४

विषय :-

शुभकामना



शहीद गंगालाल राष्ट्रिय हृदय केन्द्रले आफ्नो स्थापनाकालदेखि निरन्तररूपमा मुटुरोगको उपचारमा प्राप्त गर्दै आएको सफलता सर्वविद्धितै छ । आधुनिक उपचार पद्धति द्वारा स्वदेशमा नै विशिष्ट किसिमको स्वास्थ्यसेवा सर्वसुलभ र सरल तरिकाले उपलब्ध गराउदै जाने नेपाल सरकारको नीतिअनुरूप स्थापित त्यस केन्द्रले मुटुरोगसम्बन्धी अस्पतालको रूपमा पूर्ण सेवा प्रदान गर्दै आएको कार्य प्रशंसनीय छ ।

केन्द्र स्थापनाको १९औं वर्ष प्रवेशमा सदाभै यस वर्ष पनि आफ्ना वार्षिक गतिविधिहरू समेटेर प्रकाशन गर्न लागिएको स्मारिकाले केन्द्रबाट उपलब्ध हुने सबै सेवाहरू, मुटुरोगका कारण र यसबाट बच्ने उपायको बारेमा सेवाग्राहीमा यथेष्ट जानकारी प्रदान गर्न सक्नेछ भन्ने आशा मैले लिएको छु ।

आगामि दिनमा मुटुरोगको उपचार र निदानमा देशलाई आत्मनिर्भर बनाउने खालका सशक्त कार्यक्रमहरू विकास गर्दै अगाडि बढ्ने कार्यमा सफलता मिलोस् भन्ने शुभ-कामना समेत व्यक्त गर्दछु ।

(शान्त बहादुर श्रेष्ठ)
सचिव

EDITORIAL



Shahid Gangalal National Heart Centre has been the nation's leader in cardiac care and has been providing quality speciality care in the field of cardiology and cardiac surgery. This centre was established with the exclusive purpose of being economically accessible to all the people of this nation.



The achievements of an organization are the results of the combined effort of each individual.



Individual commitment to a group effort - that is what makes a team work, a company work, a society work, a civilization work. As a team we have conquered our challenges and established a new era of quality service in the cardiac field.



It was a privilege for us as editorial team to take the responsibility for preparing the annual report for this year. The achievements made by each department are reflected in this annual report. We thank all the contributors and authors for their effort as well as achievements.



We would like to thank Government, societies; individuals who have helped us propagate this centre to its position now. Finally we wish Shahid Gangalal National Heart Centre to remain a centre of excellence in the field of cardiac science



*Dr. Ranjit Sharma
Dr. Dipankar Prajapati
Dr. Amrit Bogati
Dr. Dikshya Joshi
Mr. Mahendra Lamsal
Mr. Santosh Dhakal*

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कार्यकारी निर्देशकको प्रतिवेदन



डा. मन बहादुर के.सी.
कार्यकारी निर्देशक

नेपालभित्र हृदयरोगको निदान, उपचार तथा मुटुरोगीहरूको पुनर्स्थापनाको लागि आवश्यक उच्च स्तरीय स्वास्थ्य सेवा सहजरूपमा उपलब्ध गराउन तथा मुटुरोगसम्बन्धी उच्चस्तरीय अध्ययन र अनुसन्धानका लागि आवश्यक दक्ष जनशक्ति तयार पार्ने उद्देश्यसहित वि.सं. २०५२ सालमा स्थापना भएको यस शहीद गंगालाल राष्ट्रिय हृदय केन्द्रले अनेकौं अवरोध तथा चुनौती पार गर्दै एक सफलतम विशिष्ट स्वास्थ्य संस्थाको रूपमा आफ्नो स्थापनाको उन्नाइसौं वार्षिकोत्सव मनाउन लागिरहेको यस पावन अवसरमा हामी

अत्यन्तै हर्षित छौं। विगतका वर्षहरूमा जस्तै गत वर्षपनि केन्द्रले आफ्नो कार्ययोजना अनुसार सम्पूर्ण लक्ष्य सफलता साथ सम्पन्न गरेको प्रतिवेदन प्रस्तुत गर्न पाउँदा हामीहरू हर्षले गदगद भएका छौं। गत आ.व. २०७०/७१ मा केन्द्रद्वारा संपादित प्रमुख कार्यहरूको विवरण संक्षेपमा पेश गर्न चाहन्छु।

बहिरंग सेवामा जम्मा विरामी संख्या:

१,१४,५३९ जना

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मुटुरोगको उपचार महंगो छ। यदि यसको रोकथाममा समयमै ध्यान दिएमा यो सस्तो र प्रभावकारी हुन्छ। त्यसैले यो केन्द्र मुटुरोगीहरूको उपचारमा रातोदिन तल्लिन भएर पनि मुटुरोगको रोकथाम र यस सम्बन्धी जनचेतना अभिवृद्धि गर्ने कार्यमा पनि निरन्तर लागि परेको कुरा जानकारी गराउन चाहन्छु। यस केन्द्रबाट विगतका

वर्षहरूमा भैं गत आर्थिक वर्षमा पनि देशका विभिन्न भागहरू (नवलपरासी, सर्लाही, म्याग्दी, बारा, महोत्तरी, ललितपुर, काठमाण्डौ लगायतका जिल्लाहरू) मा विशेषज्ञ चिकित्सकहरूको टोलीले ८ वटा निःशुल्क स्वास्थ्य शिविरहरू संचालन गरेको र ती शिविरहरूबाट भण्डै ५ हजार विरामीहरूले प्रत्यक्षरूपमा सेवा लिएका थिए। यसको लाभ र प्रभावकारिताको जनस्तरबाट निकै प्रशंसा भएको हाम्रो अनुभव छ।

माथि उल्लेख भैसकेको छ कि मुटुरोगको उपचार महंगो छ। त्यसैले यो बहुसंख्यक नेपालीहरूको पहुँचभन्दा बाहिर छ। त्यसकारण मुटुरोगीहरू आर्थिक अभावको कारणले उपचार गर्नबाट बञ्चित हुन नपरोस् भन्ने विषयमा नेपाल सरकार अत्यन्तै गम्भिर भएको पाएका छौं। तसर्थ सरकारले आफ्नो आर्थिक अवस्था मजबुत नहुँदा नहुँदै पनि मुटुरोगीहरूको लागि विभिन्न शिर्षकमा राहत कार्यक्रमहरू संचालन गरेको छ। जसको यस केन्द्रबाट अत्यन्तै प्रभावकारी ढंगले कार्यान्वयन भैरहेको छ। सदा भैं गत आर्थिक वर्षमा पनि नेपाल सरकारले १५ वर्ष मुनिका बालबालिकाहरू तथा ७५ वर्षमाथिका जेष्ठ नागरिकहरूलाई निःशुल्क उपचारको लागि बजेटको व्यवस्था गरेको छ। यी दुई कार्यक्रमको वार्षिक आर्थिक भार करिब रु. १३ करोडको हाराहारीमा छ। साँघुरिएको मुटुको भल्भ फुलाउने एटन्ट प्रविधिको लागि नेपाल सरकार द्वारा रु. २ करोड विनियोजन भएको थियो। त्यसै गरी मुटुको भल्भ प्रत्यारोपण गर्नुपर्ने विरामीहरूको लागि २०० वटा निःशुल्क भल्भको व्यवस्था गरेको छ। माथि उल्लेखित राहत कार्यक्रमभित्र नपरेका गरीब, असहाय र विपन्न नागरिकहरूको लागि विपन्न नागरिक राहत कार्यक्रम अन्तरगत नेपाल सरकार स्वास्थ्य तथा जनसंख्या मन्त्रालयमार्फत् रु. १ लाखसम्म अनुदान दिने व्यवस्था गरिएको छ। यस कार्यक्रम अन्तरगत ठूलो संख्यामा विरामीहरूले राहत पाएका छन्। गत आर्थिक वर्षमा विपन्न कार्यक्रम अन्तरगत रु. ६ करोड २८ लाख १७ हजार चौरासी रुपैया खर्च भएको छ। यो बाहेक लोपोन्मुख जनजातिका लागि निःशुल्क उपचारको व्यवस्था गरिएको छ।

माथि उल्लेखित सरकारी राहत कार्यक्रमहरूका अतिरिक्त जयन्ती मेमोरियल ट्रस्ट, नेपाल हृदयरोग निवारण प्रतिष्ठान, पाल्पा तानसेन निवासी भगवती देवी सैजू अक्षय कोष, ग्रेडा इको हिमाल च्यारिटी फार्मसी, सिता-केदार चालिसे ट्रस्ट, संकल्प नेपाल, डा. नारायण खड्का, श्री प्रदिप कोइराला, Mr. Ronald Dery - USA, Dr. Sujatha Kesavan / Dr. Ramanujam Kesavan (UK), लगायतका सहयोगी संघ संस्था तथा व्यक्तिहरूले

पनि गरीब तथा असहाय विरामीको उपचार मा यथासक्दो आर्थिक तथा भौतिक सहयोग गरिरहेका छन्।

कार्यकारी निर्देशकको रूपमा मेरो लागि चार वर्षे कार्यकालको यो अन्तिम वर्ष हो र यो पूरा हुन अब केही महिनामात्र बाँकी छ। यस अवधिमा संस्थाको विकास र स्थायीत्वमा दीर्घकालिन महत्व राख्ने केही महत्वपूर्ण कार्यहरू सम्पन्न भएका छन्। यी मध्ये केही विशिष्ट बुँदाहरू पेश गर्ने अनुमति चाहन्छु।

१. कार्डियाक सर्जिकल टिमको लागि Performance Based Incentive को व्यवस्था।

२. १५० शैयाको अस्पताललाई २०० शैयामा विस्तार गरिएको।

३. १५ शैयाको Surgical ICU लाई २८ शैयामा विस्तार गरिएको।

४. कार्डियाक सर्जरीको लागि अत्याधुनिक Modular Operation Theater को निर्माण।

५. थप नयाँ २ थान अत्याधुनिक Cardiac Catheterization Laboratory को स्थापना।

६. Cardiac Anesthesia Team को पूर्णता।

७. चिकित्सा विज्ञान राष्ट्रिय प्रतिष्ठान (NAMS) संगको सहकार्यमा DM Cardiology Program को सफलतापूर्वक संचालन।

८. Pathology Ijefudf Pathologist को नियुक्ती।

९. Radiology विभागमा Radiologist को नियुक्ती।

१०. लामो समयदेखि हुन नसकेको संस्थामा कार्यरत करारका कर्मचारीहरूको स्थायी नियुक्ती, पदस्थापन तथा बढुवा।

११. नयाँ बहिरंग भवन निर्माणको प्रक्रियाको थालनी।

१२. पाटन स्वास्थ्य विज्ञान प्रतिष्ठानसँग Perfusion Technology मा स्नातक तहको पढाइ गर्ने सहमति।

केन्द्रलाई समसामयिक एवं अत्याधुनिक प्रविधिसँग निरन्तर जोडिराख्नको लागि कार्डियोलोजी, कार्डियाक सर्जरी, कार्डियाक एनेस्थेसिया, नर्सिङ, Cardiac Rehabilitation विषयमा उच्च शिक्षा तथा Super Specialization को लागि गत आर्थिक वर्षमा पनि स्वदेश तथा विदेशमा तालिम तथा

अध्ययनको अवसर प्रदान गरिएको थियो ।

आर्थिक अनुशासन र आर्थिक कारोबारमा पारदर्शिता हाम्रो नैतिक बल हो । हामीले सम्पूर्ण खरीद प्रक्रिया अनलाईन (इ-टेण्डर) माफत प्रभावकारी रूपमा सम्पन्न गरेका छौं । विगत आर्थिक वर्षहरूमा जस्तै आ.व. २०७०/७१ सम्ममा लेखा परीक्षणमा केन्द्रको बेरुजु शुन्य नै छ ।

अन्त्यमा, केन्द्रको विकास, विस्तार र स्थायीत्वको लागि निरन्तर लागि रहनु भएका केन्द्रमा कार्यरत सम्पूर्ण कर्मचारीहरू, स्वास्थ्य तथा जनसंख्या मन्त्रालय, नेपाल सरकारका

सरोकारवाला निकायहरू, केन्द्रका वर्तमान एवं पूर्व संचालक समितिका सदस्यज्यूहरू, पूर्व कार्यकारी निर्देशकज्यूहरू, रक्तदाताहरू, चन्द्रादाताहरू, गैर-सरकारी संस्थाका प्रतिनिधिहरू, पत्रकारहरू, विरामी तथा उनीहरूका आफन्तहरू एवं सम्पूर्ण शुभेच्छुक जनमानसमा हार्दिक धन्यवाद व्यक्त गर्न चाहन्छु ।

डा. मन बहादुर के.सी.
कार्यकारी निर्देशक
मिति: २०७१/०१/१५

आ.व.२०७०/०७१ को वार्षिक कार्यक्रमको प्रगती तथा आय व्यय विवरण

यस केन्द्रले आ.व.२०७०/७१ मा मुख्य ८ वटा कार्यक्रम संचालन गर्ने लक्ष्य राखिएको र सो कार्यक्रम संचालनका लागि नेपाल सरकारको तर्फबाट चौवालिस करोड अठानब्वे लाख, स्वास्थ्य करकोषको तर्फबाट तिन करोड र आन्तरीक श्रोतबाट त्रिपन्न करोड छ लाख व्यहोर्ने गरि कुल रकम एक अरब एक करोड चार लाख बजेटको व्यवस्था गरिएकोमा यस आर्थिक वर्षमा मुख्य ८ वटा कार्यक्रम सम्पन्न भै एक अरब उन्नानब्वे लाख पचहत्तर हजार खर्च समेत भै उक्त रकमबाट निम्नलिखित कार्यक्रमहरू संचालन भएको छ ।

- मुटुरोगीहरूको परीक्षण सेवा:**
यस आ.व.२०७०/७१ मा जम्मा कुल १००००० जना विरामीहरूलाई बहिरंग सेवा माफत सेवा पुर्याउने लक्ष्य राखेकोमा यस आ.व.२०७०/७१ मा जम्मा ११४५३९ जना विरामीहरूको बहिरंग सेवा माफत मुटुको परीक्षण गरिएकोछ । यसरी वार्षिक लक्ष्यको आधारमा ११४ प्रतिशत भौतिक प्रगति देखिएकोछ ।
- मुटुको शल्यक्रिया सेवा:**
आ.व.२०७०/७१ मा जम्मा १२०० जना विरामीको मुटुको शल्यक्रिया गर्ने कार्यक्रम राखिएकोमा यस आ.व.२०७०/७१ मा जम्मा १५३० जना विरामीहरूको विभिन्न खाले मुटुको शल्यक्रिया गरिएकोछ । जसमध्ये १२५६ वटा ओपन हार्ट सर्जरी, १२६ वटा क्लोज हार्ट सर्जरी र १४८ वटा अन्य सर्जरीहरू सम्पन्न भएका छन् । यसरी वार्षिक लक्ष्यको आधारमा १२७ प्रतिशत भौतिक प्रगति देखिएकोछ ।
- एन्जियोग्राफी/प्लाष्टी परीक्षण सेवा:**
आ.व.२०७०/७१ मा जम्मा ४२००

- विमल कुमार उप्रेती
- मनोज कुमार बिष्ट

जना मुटुका विरामीहरूको क्याथल्याब सेवा माफत एन्जियोग्राफी/प्लाष्टी लगायतका विभिन्न रोगहरूको परीक्षण तथा निदान गर्ने लक्ष्य राखिएको मा वार्षिक लक्ष्यको आधारमा यस आ.व.२०७०/७१ मा जम्मा ४३४९ जना विरामीहरूको क्याथल्याब माफत विभिन्न उपचार गरिएकोछ । उपचार गराएको विरामीहरूमध्ये २३४४ जना विरामीको मुटुको एन्जियोग्राफी, ८४१ जना विरामीको मुटुको एन्जियोप्लाष्टी, ३४७ जना विरामीको मुटुको पि.टि.एम.सी, २२१ जना विरामीको पिपिआई, १९९ जना विरामीको टि.पि.आई, १८४ जना विरामीको इपिएस तथा अन्य २१३ जना विरामीको क्याथल्याब माफत अन्य सेवाहरू उपलब्ध गराइएको थियो । यसरी वार्षिक लक्ष्यको आधार मा १०० प्रतिशत भन्दा बढी भौतिक प्रगति देखिएकोछ ।

- प्रतिकारात्मक सेवा :**
आ.व. २०७०/७१ मा जम्मा ८ वटा प्रतिकारात्मक कार्यक्रम संचालन गर्ने लक्ष्य राखिएकोमा सो कार्यक्रम अन्तर्गत यस केन्द्रले मुख्य मुख्य ठाउँमा मुटुरोग सम्बन्धी शिविर संचालन गरेको थियो । जसमध्ये..
 - नवलपरासी जिल्लामा एक दिने मुटु रोग सम्बन्धी निःशुल्क स्वास्थ्य शिविर संचालन गरि ५३८ जना विरामीहरूको स्वास्थ्य परीक्षण गरिएको ।
 - सर्लाही जिल्लाको मलंगवामा १ दिने मुटुरोग सम्बन्धी निःशुल्क स्वास्थ्य शिविर संचालन गरि ४३७ जना विरामीहरूको स्वास्थ्य परीक्षण गरिएको ।
 - महोत्तरी जिल्लामा १ दिने मुटुरोग

सम्बन्धी निःशुल्क स्वास्थ्य शिविर संचालन गरि १५० जना बिरामीहरूको स्वास्थ्य परिक्षण गरिएको ।

- ललितपुर जिल्लाको इमाडोलमा १ दिने मुटुरोग सम्बन्धी निःशुल्क स्वास्थ्य शिविर संचालन गरि ३५३ जना बिरामीहरूको स्वास्थ्य परिक्षण गरिएको ।
- सर्लाही जिल्लामा १ दिने मुटुरोग सम्बन्धी निःशुल्क स्वास्थ्य शिविर संचालन गरि ११५० जना बिरामीहरूको स्वास्थ्य परिक्षण गरिएको ।
- वारा जिल्लाको सिमरामा १ दिने मुटुरोग सम्बन्धी निःशुल्क स्वास्थ्य शिविर संचालन गरि ९२८ जना बिरामीहरूको स्वास्थ्य परिक्षण गरिएको ।
- काठमाडौं जिल्ला वांसवारीमा १ दिने मुटुरोग सम्बन्धी निःशुल्क स्वास्थ्य शिविर संचालन गरि ३४५ जना बिरामीहरूको स्वास्थ्य परिक्षण गरिएको ।
- बेनी जिल्लाको गलेश्वरमा १ दिने मुटुरोग सम्बन्धी निःशुल्क स्वास्थ्य शिविर संचालन गरि ७६२ जना बिरामीहरूको स्वास्थ्य परिक्षण गरिएको ।

५. मुटुको भल्भ राहत कार्यक्रम:

आ.व. २०७०/७१ मा नेपाल सरकारद्वारा शुल्क तिर्न नसक्ने मुटुका गरिब बिरामीहरूका लागि घोषित राहत कार्यक्रम अनुसार स्वास्थ्य मन्त्रालय माफत २०० वटा मुटुका भल्भहरू खरीद गर्न रु.१ करोड रकम विनियोजित भै आएकोमा उक्त रकमबाट २०० वटा मुटुका भल्भहरू खरीद कार्य सम्पन्न भै हाल उक्त २०० वटा भल्भहरू प्रक्रिया पूरा गरी बिरामीहरूलाई वितरण गरी सकिएको र ति बिरामीहरूलाई भल्भ लगाइदिने कार्य नियमितरूपमा भै रहेकोछ । यसरी वार्षिक लक्ष्यको आधारमा १००छ प्रतिशत भौतिक प्रगति देखिएकोछ ।

६. १५ वर्षमुनीका तथा ७५ वर्ष माथिका बिरामीहरूको निःशुल्क स्वास्थ्य सेवा कार्यक्रम:

आ.व. २०७०/७१ मा नेपाल सरकारद्वारा शुल्क तिर्न नसक्ने १५ वर्ष मुनीका मुटुका गरिब बिरामीहरू तथा ७५ वर्ष माथिका मुटुका गरिब बिरामीहरूका लागि घोषित राहत कार्यक्रम अनुसार रु.११ करोड ८०

लाख रकम विनियोजित भै आएकोमा उक्त रकमबाट १५ वर्ष मुनीका मुटुका ६४७ जना गरिब बिरामीहरूको विभिन्न किसिमका शल्यक्रियाहरू सम्पन्न गरिएकोछ भने ७५ वर्ष माथिका २१८ जना गरिब बिरामीहरूको उपचार गरिएकोछ । यसरी वार्षिक लक्ष्यको आधारमा १०० प्रतिशत भौतिक प्रगति देखिएकोछ ।

७. पि.टी.एम.सी. गर्ने बिरामीहरूको निःशुल्क स्वास्थ्य सेवा कार्यक्रम:

आ.व. २०७०/७१ मा नेपाल सरकारद्वारा शुल्क तिर्न नसक्ने मुटुको भल्भ सागरिएको बिरामीहरूको उपचारका लागी घोषित राहत कार्यक्रम अनुसार रु.२ करोड रकम विनियोजित भै आएकोमा उक्त रकमबाट ३४७ जना गरिब बिरामीहरूको पि.टी.एम.सी.सम्पन्न गरिएकोछ । यसरी वार्षिक लक्ष्यको आधारमा १०० प्रतिशत भौतिक प्रगति देखिएकोछ ।

८. पुर्वाधार निर्माण तथा विकास कार्यक्रम:

आ.व. २०७०/७१ मा जम्मा पुर्वाधार विकास तथा निर्माणका लागि १ वटा कार्यक्रम अन्तर्गत एम्बुलेन्स खरीद, भवन निर्माण तथा मेशीनरी औजार खरीद कार्यक्रम संचालन गर्ने लक्ष्य राखिएकोमा सो बमोजीम मुख्य मुख्य कार्यमा क्याथल्यव मेशीन, मोडुलर ओ.टी., अस्पताल फर्निचरहरू, ल्यावको लागी आवश्यक उपकरणहरू, इ.टि.यो मेशीन, ओपिडीका लागी आवश्यक उपकरणहरूको व्यवस्था गरिएको साथै अस्पतालमा नियमितरूपमा हुने अन्य मर्मत सुधारका कार्यहरू पूरा भएकोछ ।

निष्कर्ष:

यस केन्द्रले चालू आ.व. २०७०/७१ को वार्षिक कार्यक्रम संचालनका लागि मुख्य गरी ८ वटा कार्यक्रम तय गरी सौही बमोजीम बजेटको व्यवस्था गरेकोमा वार्षिक लक्ष्यको आधारमा तोकिएको भन्दा बढी अर्थात १००छ भन्दा पनि बढी भौतिक प्रगति हासिल गरेको देखिएकोछ भने वित्तिय तर्फ वार्षिक लक्ष्यको आधारमा ९९.८६ प्रतिशत प्रगति देखिएकोछ ।

HOSPITAL INDICATORS 2070/071

SN	INDICATORS	VALUE
1	Infection Rate (Wound Infection)	0.84%
2	Average Length of Hospital Stay	3.41%
3	Mortality Rate of Surgical Cases	5.16%
4	Mortality Rate of Medical Cases	1.78%
5	Mortality Rate of All In- Patients	2.18%
6	Doctor: OPD Patient Ratio	3272.54
7	Doctor: In-Patients Ratio	183.21
8	Nurse: In-patients Ratio	71.86
9	Percentage of Non-salary Cost (Through Total Cost)	83.83%
10	Drug Wastage Rate	0 %
11	Bed Occupancy Rate	80.15%
12	Right Use of Financial Resource	10 0%
13	Right use of Surgeon	153 Cases Per Surgeon
14	Total Poor Patients Charge	2.3%
15	Total Poor Patients Exemption Rate (Through Total Cost)	0.89%
16	Ratio of Referred Patients (IPD)	0.16
17	A) Cost Recovery Rate (Through Total Cost)	74.11%
18	B) Cost Recovery Rate (Through Total Budget)	74.01%
19	Clinics Sustain Rate	Special Clinic
20	Average Output Per Day (X-rays)	133.96
21	Average Output Per Day (Lab Test)	1797.30

शहिद गंगालाल राष्ट्रिय हृदय केन्द्र
बांसबारी, काठमाडौं
आय-व्यय विवरण
आ.व. २०७०/७१

आय विवरण	अनुसूची	रकम	व्यय विवरण	अनुसूची	रकम	रकम
गत वर्षको जिम्मेवारी	१	८२६,२४९,४४२.४८	जम्मा बजेट खर्च	८	८७८,३२३,७२१.३४	१,००२,८४०,७४६.८६
नेपाल सरकारबाट प्राप्त अनुदान		४४९,५००,०००.००	चालु वर्षको बजेट खर्च	२	१२४,५१७,०३५.५१	७,६१२,७९,४२४
स्वास्थ्य करकोषबाट प्राप्त अनुदान	४	३०,०००,०००.००	गत वर्षको बजेट खर्च	२		२,७४,०४,७००
गरीब विपन्न राहतकोष	४	३७,९९७,९६६.००	नविल बैंक (धरोटी)	७		१,७९,०००.००
आन्तरिक श्रोत आम्दानी	२	७१०,६९०,५७२.००	धरोटी खर्च	९		२२,०५४,०१४.००
रिटर्न्स तथा धरोटी	३	१०,३६६,८५१.२४	सेवामा धरोटी (टेलिफोन, खानेपानी)	१०		१३०,६५१,४७०.१२
व्याज आम्दानी	६	५३,९८७,८२१.४४	च्यारिटी तथा भिनाह खर्च			२६,५६१,८७९.००
धरोटी (टेलिफोन, खानेपानी)		१७९,०००.००	पेरिक बाँकी (प्रतिपत्र तथा अन्य)			
दायित्व		१२,२९१,४१०.००	जम्मा लिनु पर्ने			
विविध आम्दानी		३७७.००	गरीब विपन्न राहतकोष खर्च			
			अन्य संघ संस्था			
			बैंक मौज्जात			
			नगद तथा मार्गस्थल मौज्जात			
		२,१२९,८८२,६४०.१७			११(क)	८८८,०६६,९८१.००

(डा. मन बहादुर के.सी.)
कार्यकारी निर्देशक

(मिमल कुमार उप्रेती)
आर्थिक प्रशासन प्रमुख

(मनाज कुमार बिष्ट)
ब.लेखा अधिकृत

(मथुरा मोहन श्रेष्ठ)
लेखा परिक्षक
Registered Auditor
Certificate No. १७



DEPARTMENT OF CARDIOVASCULAR SURGERY

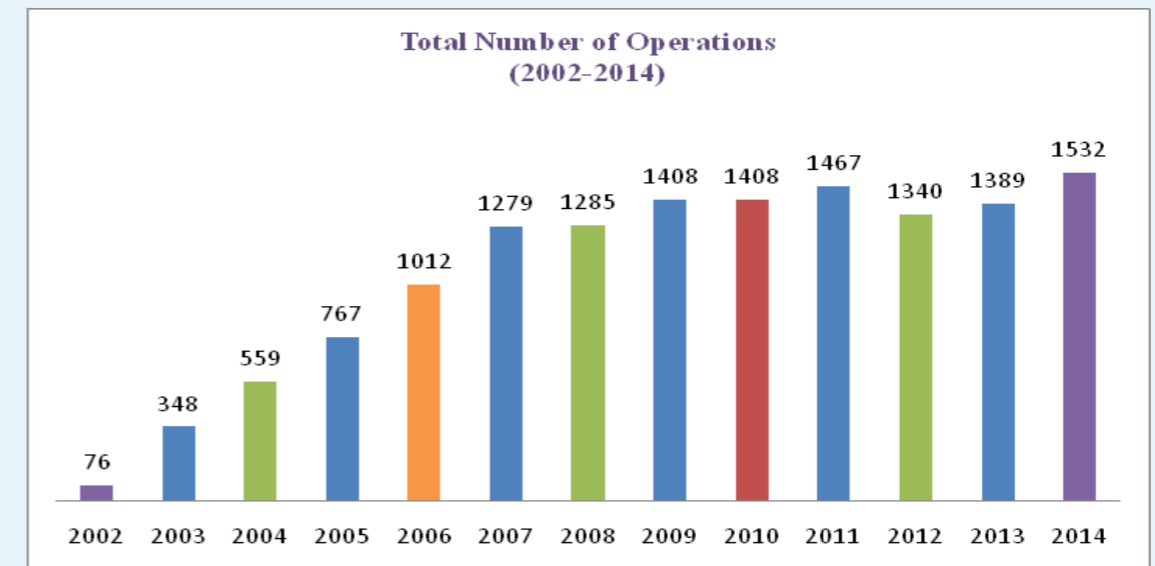
Dr. Dikshya Joshi

HONORING THE PAST AND CREATING THE FUTURE

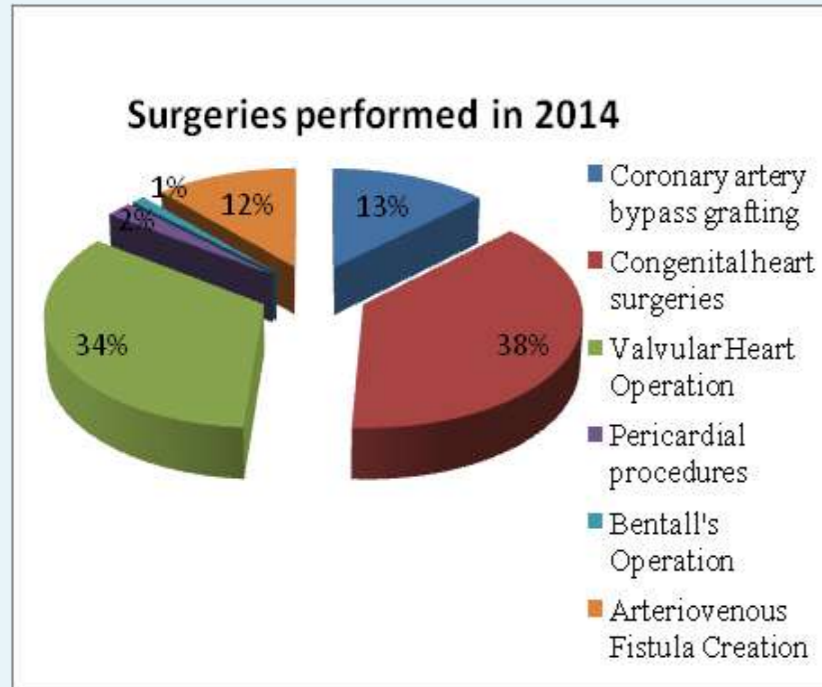
Department of cardiac surgery in Shahid Gangalal National Heart Centre (SGNHC) is anchored on a solid foundation that has taken decades in the making. The department has changed over time, and this constant striving to evolve towards excellence has led to its success. Today, SGNHC is executing an ambitious plan

that has been attracting and serving more patients from all over Nepal. Its deep resources allow it to consistently recruit top medical professionals, build innovative facilities and invest in leading technology.

In 2013-2014, the department conducted 1532 surgeries, and had 1911 outpatient visits. We have been seeing increasing flow of patients with coronary heart disease, and the number of coronary artery bypass grafting (CABG) is on the rise and



accounts to 183 surgeries. Congenital heart surgery is the largest volume of procedures performed at our centre numbering 539 surgeries. There were total 480 operations for valvular heart disease, 19 vascular procedures, 31 pericardial procedures, 16 Bentall's operations, 165 arteriovenous fistula creation and 59 other procedures.



Of critical importance has been the department's recent focus and commitment to build three new modular operation theaters together with 28-bed intensive care unit. The work has been well underway, and by 2015, the centre will feature one of country's most advanced specialized cardiac operating theatres, allowing surgeons to conduct additional cases, cure more intricate diseases, and provide expeditious service to the patients.

Honoring its responsibilities to the community has been SGNHC's ideal since the hospital's founding. SGNHC has helped thousands of patients with heart disease and assisted local families in need with their medical expenses. Under Children Assistance Program, this year we performed 558 heart surgeries free of cost for children under 14 years of age. With the support of the government of Nepal, we provided every patient undergoing heart surgery

with an aid of NRs 1 lakh under "Bipanna Scheme". Every year 200 patients with poor financial status receive free valves for their valve replacement surgeries from our centre.

Research is a vital component of the department of cardiac surgery's mission and an integral element of its training program. Research efforts are focused on key areas of interest that promise to yield significant results in the understanding of diseases and in the improvement of clinical care. This year, our faculty member, Dr. Anil Acharya brought us honor by receiving Best Abstract Award for paper presented at 12th International Conference of Conquering Heart Disease in the Himalayan Region. Dr. Rabindra Timala, for the first time in Nepal, successfully performed Konno- Rastan aortoventriculoplasty in a 13-year old child. This year,

we successfully performed Aortic Valve Replacement in a 93-year old lady with severe symptomatic aortic stenosis. Dr. Sidhartha Pradhan visited Leipzig Heart Centre for a week in a training program. Dr. Bijoy Rajbanshi presented paper at the AATS Aortic Meeting, New York, USA. Dr. Nabin Gautam attended Annual Scientific Meeting of Australia & New Zealand Society of Cardiac and Thoracic Surgeons.

This year we had some of most notable visitors who spent their time and shared their expertise with us. We are sincerely grateful to Dr. Robert Quaife, Dr. David Fullerton, Dr. Fredrick Grover, Dr. David Campbell from University of Colorado, Denver, USA, Dr. Lyle Joyce, Dr. Sherry Crow, Dr. Jeffery Riley, Dr. Allison Cabalka, Dr. David Joyce and team from Mayo Clinic, Rochester, Minnesota, and, Dr. Kumudh Dhital, cardiothoracic specialist and transplant surgeon from St Vincent's

Hospital, Sydney, Australia.

The department has also expanded relationships with other health care institutions to work collaboratively to produce competent health workers for the future. Memorandum of Understanding has been signed with Patan Academy of Health Sciences (PAHS) to run various academic courses. We are in the final phase of starting BSc Perfusion course with PAHS. McH program will start in cardiac surgery in collaboration with National Academy of Medical Sciences (NAMS).

With a healthy and full complement of personnel, cardiac surgery is focused to provide evidence-based interventions to each patient in the right way and at the right time. The department will continue improving existing programs and will strive to enhance its core mission of excellence in patient care, innovative research and training the future generation of cardiac surgeons.

ARTICLES PUBLISHED

1. Rajbanshi BG, Burkhart HM, Schaff HV, Daly RC, Phillips SD, Dearani JA. Surgical Strategies for Anomalous Origin of Coronary artery from Pulmonary artery in Adults. *J Thorac Cardiovasc Surg.* 2014;141(7):
2. Rajbanshi BG, Suri RM, Nkomo VT, Dearani JA, Daly RC, Burkhart HM, Stulak JM, Joyce LD, Li Z, Schaff HV. Influence of mitral valve repair versus replacement on the development of late functional tricuspid regurgitation. *J Thorac Cardiovasc Surg.* 2014. Epub 2014/05

3. Dikshya Joshi, Zhi Gang Guo. Utility of perioperative B-type natriuretic peptide in off-pump bypass surgery. *Nepalese Heart Journal* 2014;11(1): 19-25.

PAPER PRESENTATION

1. Rajbanshi BG, Salloum MN, Zaza KJ, Theodoropoulos P, Rajbakaruna C, Ziganshin BA, Mojibian HR, Johnson MH, Elefteriades JA. Dual Energy CT Scan Effectively Demonstrates Spinal Artery. Presentation at the AATS Aortic Meeting, New York, New York, USA – April 24 – 25th, 2014
2. Dr Anil Acharya. Does Anterior Pericardiectomy suffice for post infective constrictive pericarditis? Short and intermediate term outcome at 12th International Conference on CONQUERING HEART DISEASES IN THE HIMALAYAN REGION, 17-18 October 2014 in Hotel Hyatt.

3. Dikshya Joshi, Bijoy G Rajbanshi, Sidhartha Pradhan, Rabindra Timala, Raamesh Koirala, Navin Gautam, Anil Acharya, Jyotindra Sharma. Repair of Coarctation of Aorta: Surgical approaches and outcome at XII International Surgical Conference of Society of Surgeons of Nepal – November 28-29th
4. Marisha Aryal, Bijoy G Rajbanshi, Navin Gautam, Sidhartha Pradhan, Anil Acharya, Raamesh Koirala, Rabindra Timala, Jyotindra Sharma. Immediate Outcome of Surgical Repair of Ruptured Sinus of Valsalva in Adults at XII International Surgical Conference of Society of Surgeons of Nepal – November 28-29th



DEPARTMENT OF ANESTHESIOLOGY

Dr Jeju Nath Pokharel, Dr Apurb Sharma, Dr Ashish Govinda Amatya, Dr Surendra Bhusal, Dr Battu Kumar Shrestha, Dr Sandip Bhandari, Dr Smriti Bajracharya, Dr Bidhan Gyawali, Dr Dhandu Rani Shakya

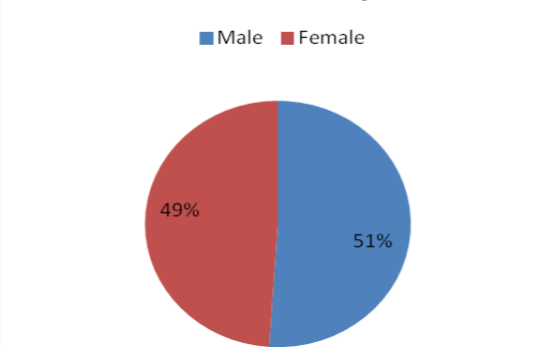
Cardiac Anesthesiology at the Shahid Gangalal National Heart Centre is a multi-faceted division dedicated to perioperative cardiovascular care, education and research. The division encompasses:

- ✓ Pre-operative assessment and preparation of all patients prior to surgery
- ✓ Intra-operative anesthesia services including Trans-oesophageal echocardiography
- ✓ Post-surgical intensive care management in collaboration with department of surgery
- ✓ All other respiratory care

Approximately 1,400 open-heart procedures per year require anesthesia. These procedures include coronary artery bypass, valve replacement/repair surgery, surgery for repair of congenital heart lesions, vascular surgery, pericardial

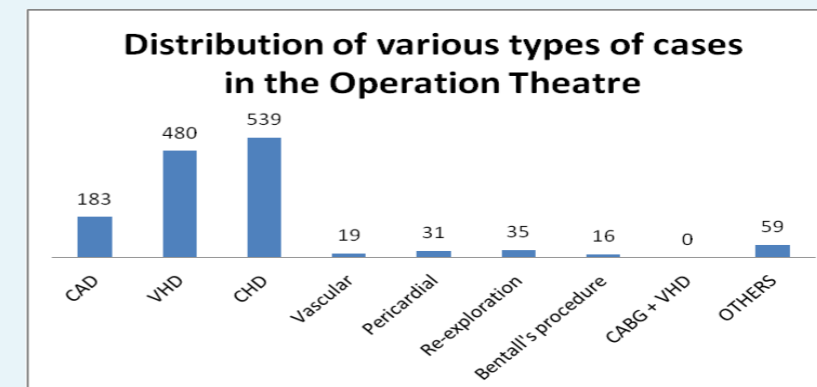
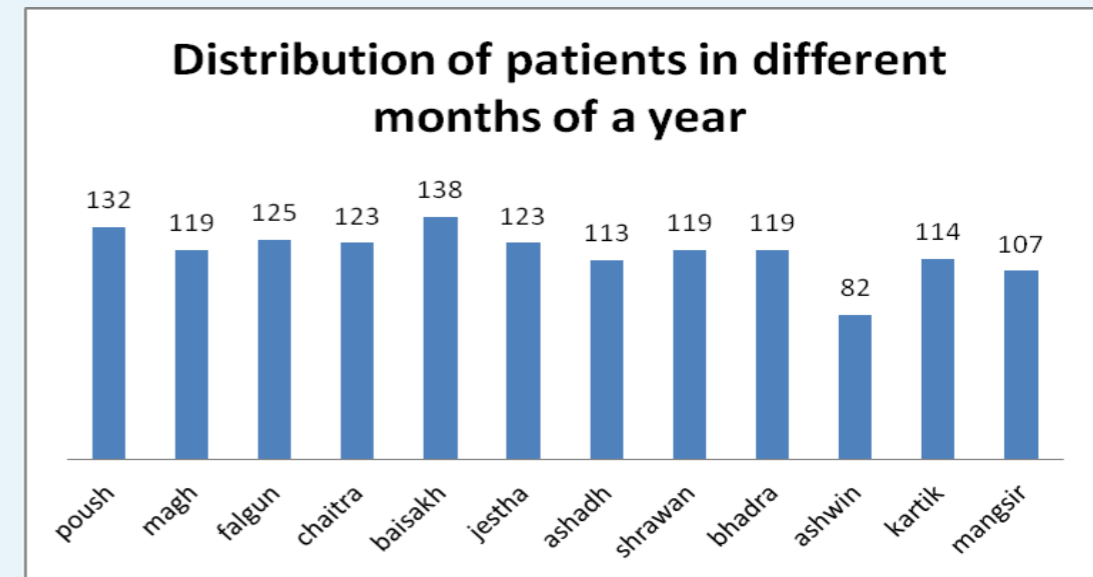
surgery, cardiac tumours and others. Clinical anesthesia is also provided for a growing number and variety of pacemaker and implantable cardioverter-defibrillator (ICD) and arrhythmia procedures, percutaneous procedures for diagnostic and therapeutic interventions in patients with congenital heart disease, balloon valvotomy of mitral, aortic and pulmonary valves in the catheterization laboratory (cath lab). Multi-disciplinary intensive care for cardiac surgery patients is provided in the Cardiac Surgical Intensive Care Unit.

Distribution with respect to sex



Respiratory care support is also provided to the mechanically ventilated patients in the Coronary Care Unit.

Sex wise distribution of the patients managed in operation room is shown in pie chart below.

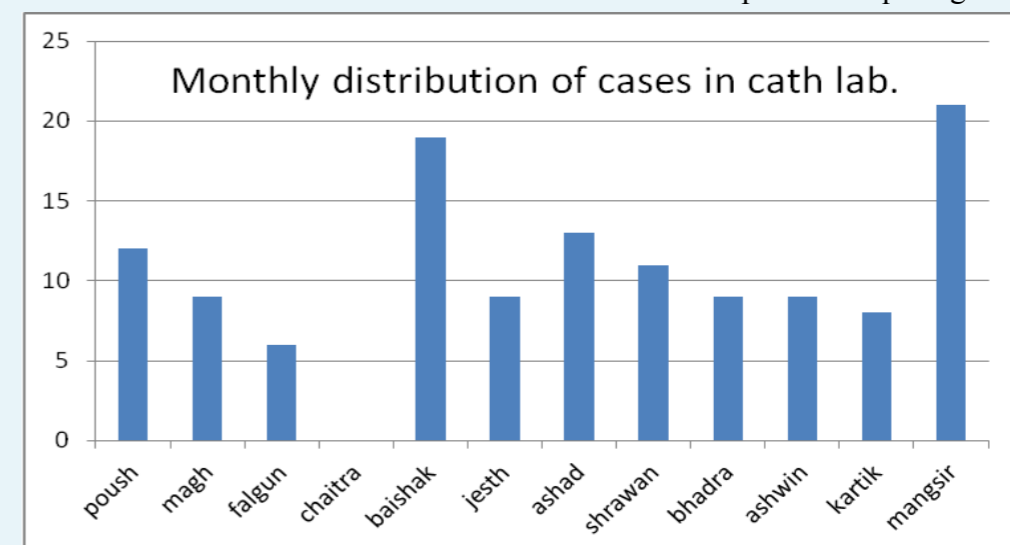


There was even distribution of cases in different months; however ashwin had a least number of cases due to Dashain and Tihar, the major festivals of Nepalese people. This trend is seen almost every year.

Total number of patients requiring anesthesia services were 1576. Among that 1414 received general anesthesia, remaining 162 patients received monitored anesthesia care.

Among all the anesthetized cases in the operating room, adults accounted for 61.5 %, paediatric 31.3 % and infants accounted for 7.1 % of total cases.

Number of the patients requiring anesthesia



services in cath lab was 126. Among that right heart catheterization for cyanotic and acyanotic congenital heart diseases (CHD) and percutaneous trans-septal mitral commissurotomy (PTMC) were

63 (50%), device closure for ASD, VSD or PDA were 40 (31%), percutaneous coronary intervention (PCI) were 17 (14%) and 6 (5%) others like permacath insertion.

ACTIVITIES

Educational participation includes residency rotations for the National Academy of Medical Sciences, Department

of Anesthesiology Residency Program and CME programs of the hospital.

The goal of our department is to ensure quality care for the patient in the hospital, critical care, cath lab and develop the subspecialty training in cardiac anaesthesia by fostering the research activities.

A day workshop in cardio pulmonary resuscitation is being held every month with a objective of training all healthcare professional in the hospital within a year started since 2071 Aashad.



NON-INVASIVE CARDIOLOGY AND OPD SERVICES

Dr. Amrit Bogati, Dr. Ranjana Bista

INTRODUCTION

Shahid Gangalal National Heart Centre has been running Outpatient departments since the establishment of the institution. Lots of Nepalese people from all over the country including foreigners hailing in Nepal or been here for tourism purpose, have been benefitted from both general and paying OPD services. Along with the OPD consultations, patients undergo different investigative procedures which aid in the diagnosis of the diseases.

Non-invasive services form an integral part of this institution both in the form of services provided to the patients as well as a major source of income for the running of the hospital as a whole. Advanced non-invasive cardiology imaging technologies have dramatically improved early detection and treatment of cardiovascular diseases. They are typically safe and painless, and allow you to resume normal activities almost immediately.

Currently, the non-invasive unit in our

institution is equipped with 6 functioning Echo machines (1 – High End 3D Echo & TEE, 2 high-end and 3 medium range), 4 treadmills, 20 functioning holter monitoring devices and 7 ABP devices. The services provided in our institution include Exercise Stress Testing/Treadmill Stress Test, Pharmacological (Dobutamine) Stress Tests, Exercise Stress Echocardiogram, Transthoracic Echocardiogram, Transesophageal Echocardiogram, Holter monitoring, Electrocardiogram (ECG), Ambulatory Blood Pressure monitoring, Chest X-ray, Fetal Echocardiography, Carotid Doppler, Enhanced External Counter Pulsation (EECP) and Benzathine Penicillin Injections.

SERVICES PROVIDED

During the Year 2013, there were total of 1,11,260 patients attending the outpatient department as compared to 1,05,941 patients last year. Each year there is significant increase in the number of patients attending both general and paying OPDs, resulting the highest number of patients attending

the outpatient department this year, since the establishment of this institution. This shows the increase in awareness of people towards their health.

Similarly, the number of almost all non-invasive procedures this year has exceeded the number from last year. Among them, the maximum number of people underwent Transthoracic Echocardiogram (total of 46,394).

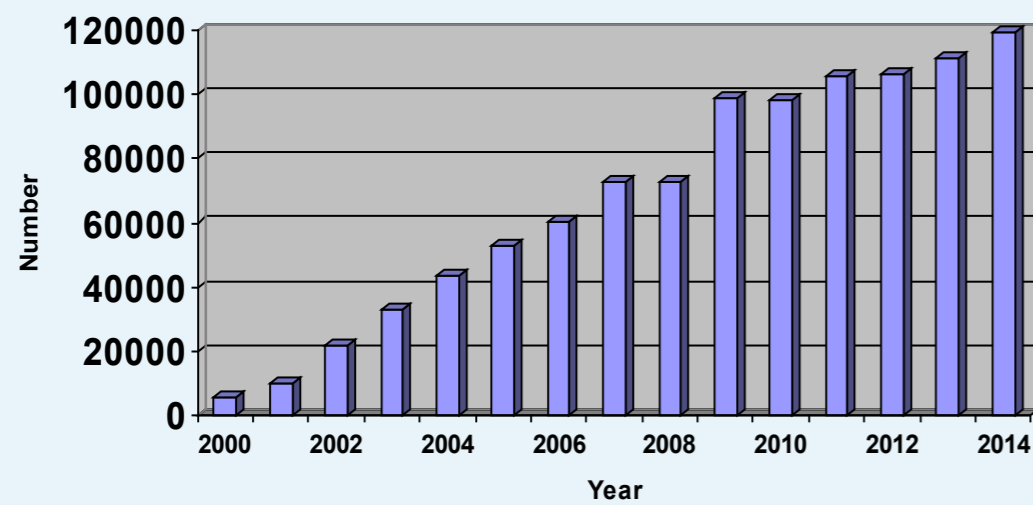
Since the introduction of EECP (Enhanced External Counter-Pulsation) service at our centre for the first time in this country in 2010, total of 25 patients have benefitted from this service with refractory angina despite optimal medical management who are not candidates or not willing for revascularization.

Number of Patients Receiving Non-invasive Services in 2014

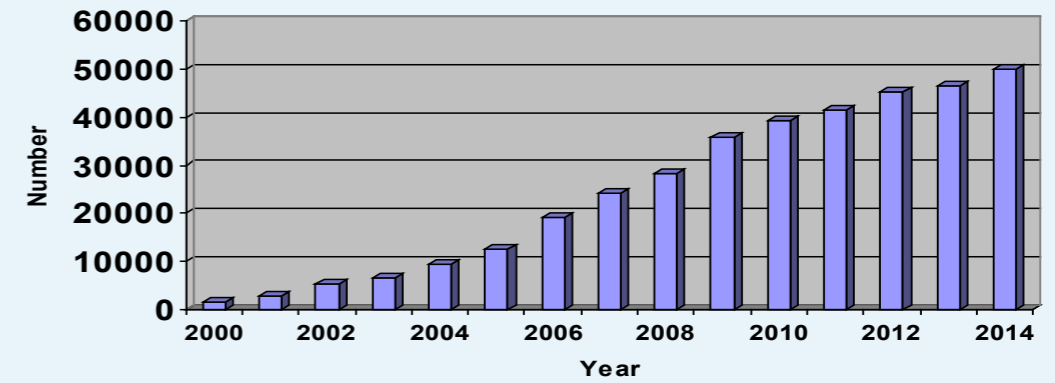
Investigations	Male	Female	Total
Electrocardiogram	23227	19855	43082
Transthoracic Echocardiogram	26855	23218	50073
Echo Screening	502	539	1041
Trans-oesophageal Echocardiogram	212	433	645
Dobutamine Stress Echocardiogram	38	21	59
Fetal echocardiogram	-	265	265
Carotid Artery Doppler	182	86	268
Tread mill test	6475	3519	9994
Holter monitoring	1470	1438	2908
Ambulatory Blood Pressure Monitoring	731	470	1201
Total OPD attendance	62267	57035	119302
Benzathine Penicillin Injections	2103	2734	4837
X-Ray	27570	25456	53026

Graphs below show a comparison in the number of patients receiving non-invasive services since the beginning of the service at the OPD:

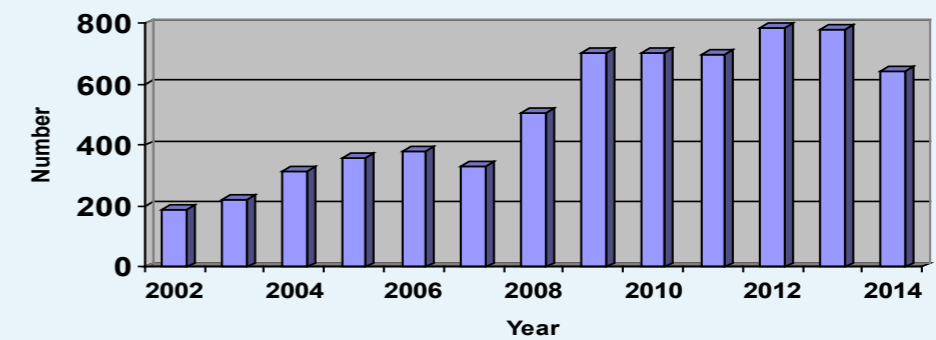
Yearly OPD attendance



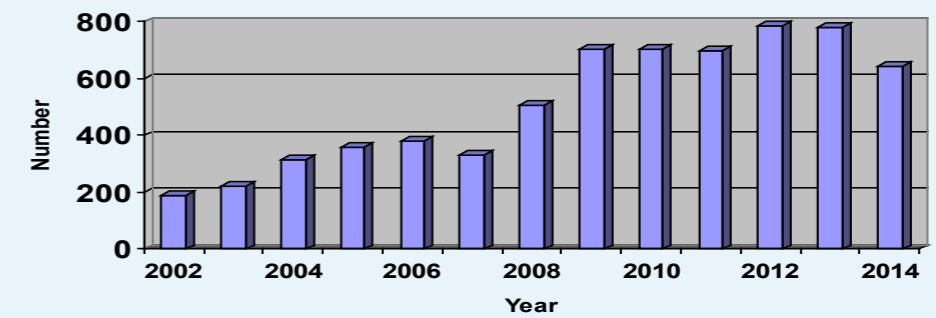
Transthoracic Echocardiogram



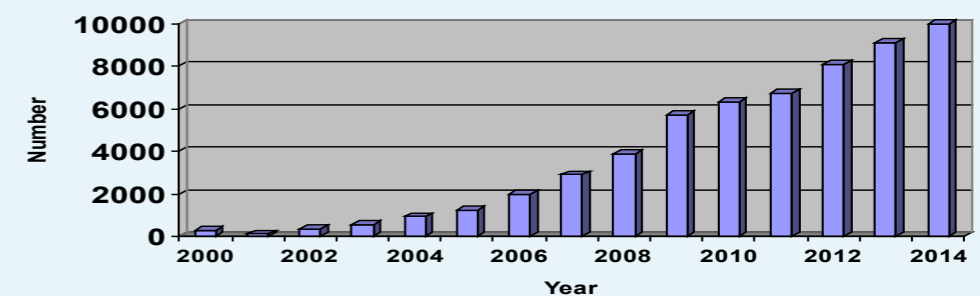
Transesophageal Echocardiogram



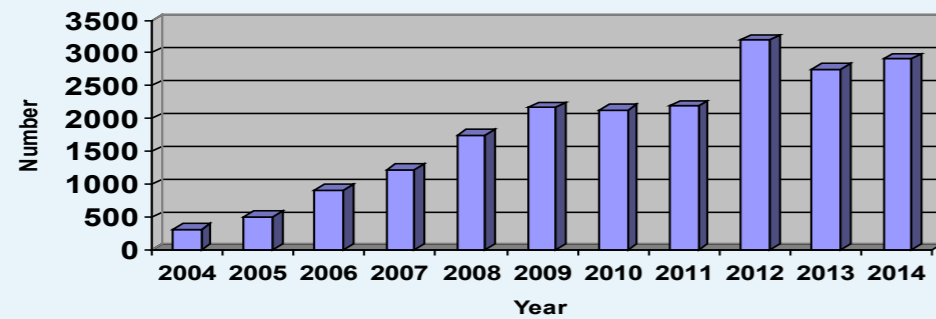
Transesophageal Echocardiogram



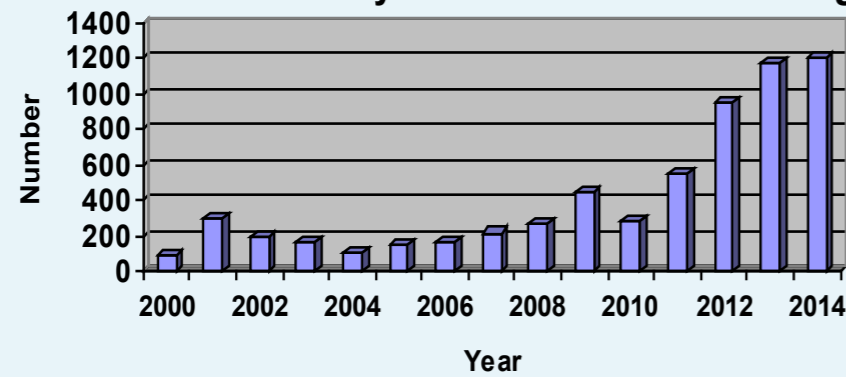
Tread Mill Testing



Holter Monitoring



Ambulatory Blood Pressure Monitoring



PEDIATRIC CARDIOLOGY SERVICE

Dr. Urmila Shakya, Dr. Poonam Sharma, Dr. Sunita K. C.

INTRODUCTION

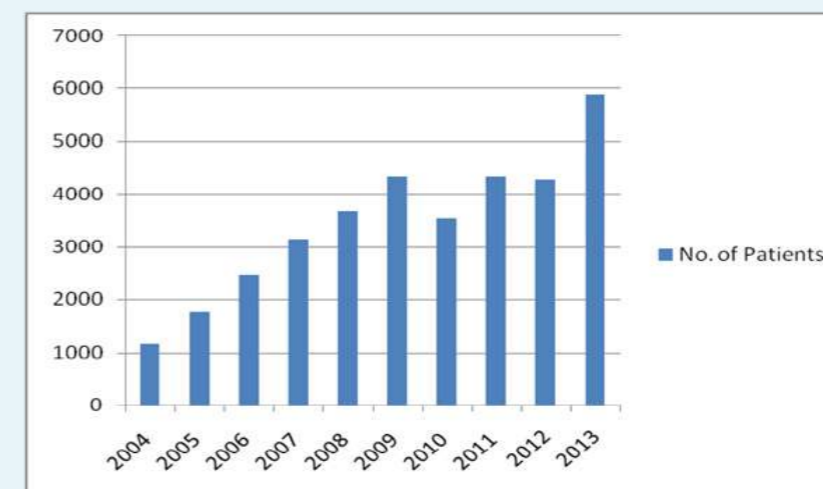
Shahid Gangalal National Heart Centre is one of the very few hospitals in Nepal providing cardiac health services to the pediatric population. It is a major referral center from all over Nepal and neighboring country where children

suffering from heart disease are appropriately diagnosed and managed accordingly.

SERVICES PROVIDED

Pediatric Cardiology unit is providing its services on all working days (i.e., Sunday to Friday). The services provided by the

unit include OPD, Inpatient, Invasive and Non-Invasive services. Although Pediatric Cardiology OPD was started on 2004 A.D, it was running only thrice a week due to very limited resources. Despite the limitations, we have expanded our OPD services to all working days since March 2013. Pediatric Cardiology unit deals with all types of cardiac illnesses, however the majority of



the children are those with rheumatic heart disease and structural (congenital) abnormality.

Each year there is an increasing number of OPD attendants with a total number reaching 6949 in the year 2014. Among them, 3449 (58.4%) were male and 2454 (41.6%) were female.

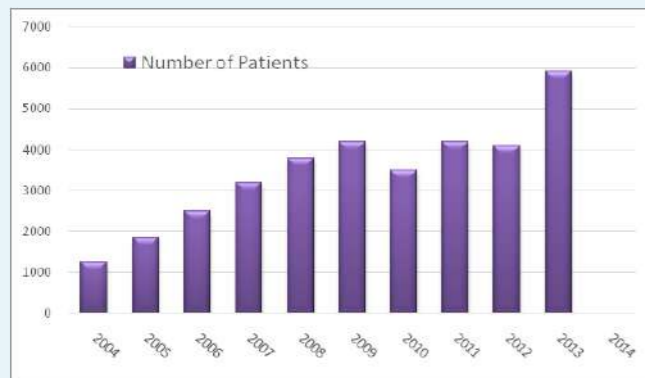


Fig. 1: No. of OPD patients as per year

Fig 2 shows gender-wise distribution of patients visiting to Pediatric OPD in 2014. The number of male patients seeking medical care is seen to be more than female patients in every month.

Inpatient services to pediatric patients have been started since the last three years with a six bedded pediatric ward providing services to children being admitted for various reasons. Total of 152 patients were admitted this year. Surprisingly male and female

patients were equal in number with 76 of them being male and 76 being female. The mean age of children being admitted was 9.9 years (S.D: 3.8) ranging from 1 year to 15 years of age. Along with its own inpatient children, Pediatric Cardiology Unit is also looking after those who are being admitted in various surgical wards both pre-operatively or post-operatively.

Table 1: Distribution of Inpatient in Pediatric Ward

Diagnosis	No. Of Patients
Heart Failure	33
Infective Endocarditis	39
Acute Rheumatic Activity	5
S/P Diagnostic Catheterization	34
S/P Therapeutic Catheterization	23
Pericardial Effusion/ post Pericardiocentesis	7
Arrhythmia	3
Complex Congenital Heart Disease	8
Total	152

(NB: Some children undergoing catheterization procedure had been admitted in other wards due to unavailability of beds in Pediatric ward causing disparity in numbers.)

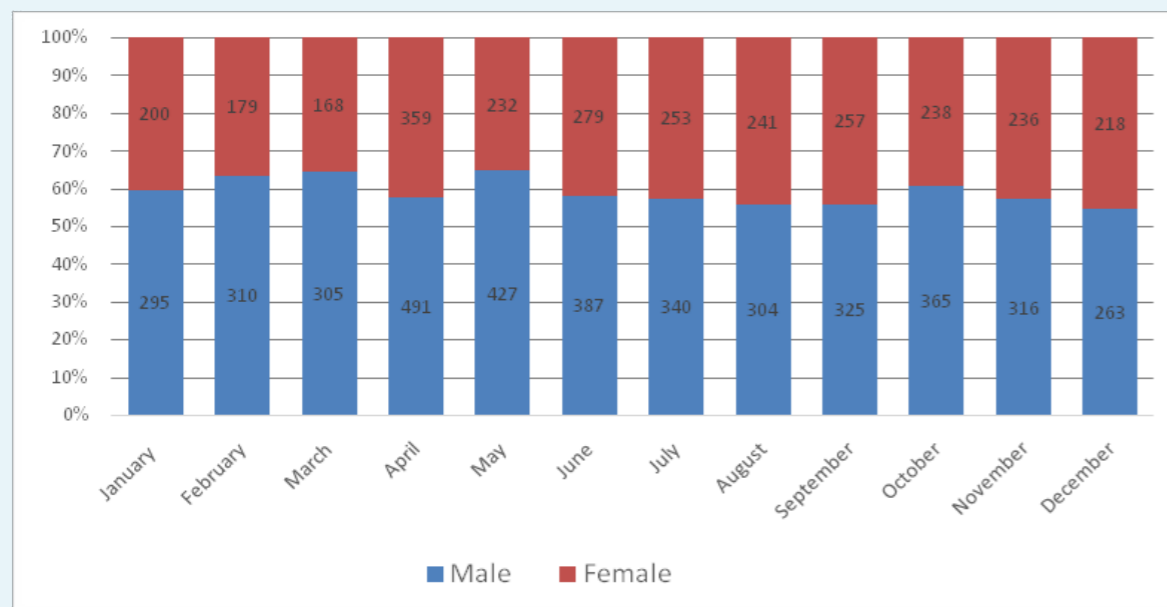


Fig. 2: No. of OPD patients as per year

PEDIATRIC ECHOCARDIOGRAPHY

Pediatric Cardiology Unit has expanded its Transthoracic Echocardiography services from three days a week to all working days since 2013. Along with our own OPD patients we get referrals for echocardiography from different departments in the hospital mainly for structural (congenital) heart diseases. A total of 4623 patients had undergone transthoracic echocardiography by the pediatric department. Among them 58% (n=2683) were male and 42% (n=1940) were female. The mean age of children undergoing echocardiography was 6.4 years (S.D= 4.8) with minimum age being two days of life and maximum of 30 years of age.

The number of echocardiography performed has increased since 2013 when the service had been extended to six days a week. However as one of our registrar has gone abroad for further training, the number of echocardiography has decreased slightly in 2014 as compared to the year 2013.

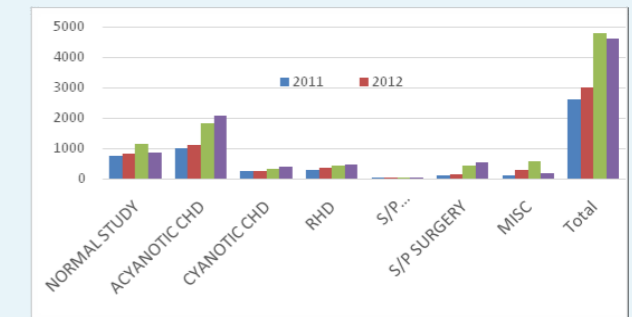


Fig. 5: Comparison of Echocardiography findings in consecutive four years.

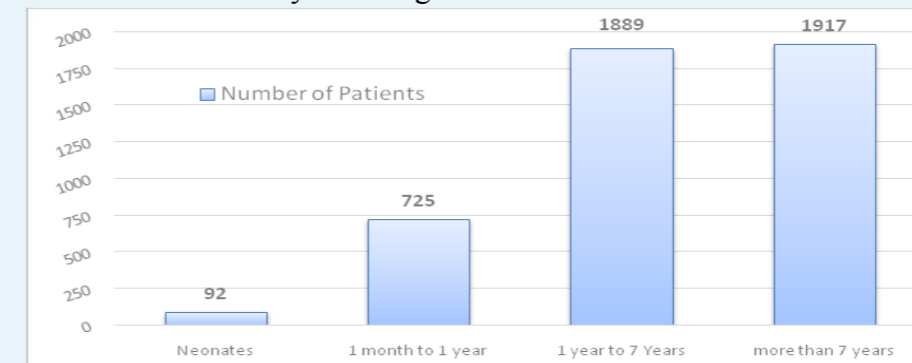


Fig. 3: Age Distribution of patients undergoing Trans Thoracic Echocardiography

Abnormal finding in echocardiogram was seen in 81.6% (n=3774) of patients with the most common finding being Acyanotic Congenital Heart Disease which was present in 45% (n=2075) of children. Other abnormal findings were classified as Cyanotic CHD, Rheumatic Heart Disease, post intervention procedures, post-surgical procedures and miscellaneous diseases. The percentage of each of the categories is shown below.

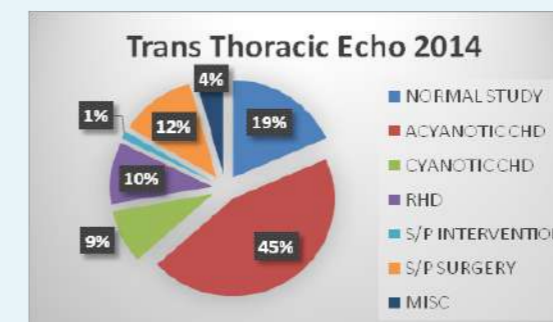


Fig. 4: Echocardiography Findings

MINIMAL INVASIVE PROCEDURES PERFORMED IN CHILDREN AT SGNHC

Both diagnostic as well as therapeutic cardiac catheterization procedures are being

performed in children by the Pediatric Cardiology Unit of SGNHC. Since the availability of Children Assistance Programme (CAP) by the government where children undergoing intervention procedures are given services free of charge, there has been a sharp increase in the number of children seeking treatment. Therapeutic catheterization like Balloon Pulmonary Valvotomy, Balloon Aortic Valvotomy and Percutaneous Transluminal Mitral Commissurotomy are regularly being performed in children. As the device for ASD and PDA does not fall under CAP program, device closure for ASD and PDA is performed only in few cases as the patients are unwilling and/or unable to pay for the expensive device.

Table 2: Distribution of patients undergoing intervention

Procedures	No. of Patients
Diagnostic Cath Study (RHC/LHC)	49
Balloon Pulmonary Valvuloplasty	16
Balloon Aortic Valvuloplasty	3
Percutaneous Transluminal Mitral Commissurotomy (PTMC)	11
ASD Device Closure	4
Coil Embolization (for Coronary fistulas)	1

The decreasing number of diagnostic catheterization in the recent years have shown our improvement in the quality and accuracy of ecocardiography findings. However it still remains a gold standard tool in complex heart disease and severe pulmonary hypertension for accurate assessment of pulmonary artery pressure. Similarly more number of children are getting benefit from the minimally invasive interventions shown by the increasing number of therapeutic intervention.

HUMAN RESOURCES

This year there has been an addition of

one more registrar in the department of Pediatric Cardiology which now consists of one Consultant Pediatric Cardiologist, two Registrars and one Medical Officer. We hope to add further on it to cope with the load in future. Also one of our registrar has gone abroad for further training in pediatric cardiac intervention.

Visits by expertise in pediatric cardiology from different parts of world viz. Mayo Clinic, Minnesota; University of Texas Health Science, Texas; Escorts Heart Institute, New Delhi and so on provide us with advice and guidance to improve our knowledge and technical skill in giving better services to the pediatric patients. We are also providing basic training in Pediatric Cardiology including echocardiography to interested candidates from different institutes.

CONCLUSION

Due to increased awareness of heart disease in Nepal, there has been steady increase in the number of patients attending Pediatric Cardiology OPD. With limited resources we are continually trying to give quality services and with more days to come we'll leave no stone unturned for betterment of pediatric cardiology service.

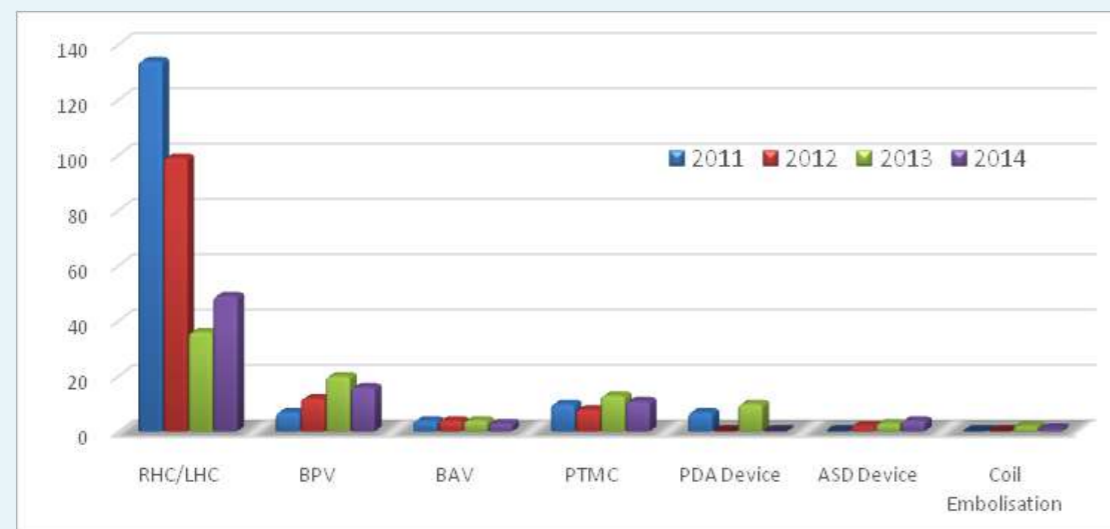


Fig. 6. Invasive Service comparison in four consecutive years



ACUTE CORONARY SYNDROME

Dr. DipankerPrajapati, Dr. Prabesh Neupane, Dr. Neha Bista

INTRODUCTION

Coronary Heart Disease (CHD) is a worldwide health epidemic. Worldwide, 30% of all deaths can be attributed to cardiovascular disease, of which more than half are caused by CHD, and the forecasts for the future estimate a growing number as a consequence of lifestyle changes in developing countries. Globally, of those dying from cardiovascular diseases, 80% are in developing countries. Acute Coronary Syndromes (ACS) is a unifying term representing a common end result, acute myocardial ischemia. Acute ischemia is usually, but not always, caused by atherosclerotic plaque rupture, fissuring, erosion, or a combination with superimposed intracoronary thrombosis and is associated with an increased risk of cardiac death and myonecrosis. ACS encompasses acute MI (resulting in ST-segment elevation and non-ST-segment elevation) and unstable angina. ACS patients presenting with new evidence of ST-segment elevation on the presenting

ECG are labeled as having an ST-segment elevation MI (STEMI) and should be considered for immediate reperfusion therapy by thrombolytics or percutaneous coronary intervention (PCI); those without ST-segment elevation but with evidence of myonecrosis are deemed to have a non-ST-segment elevation MI (NSTEMI); and those without any evidence of myonecrosis are diagnosed with unstable angina.

SERVICE PROVIDED

Coronary care unit (CCU) in SGNHC has been especially designed to provide quality care for ACS patients. The 12 bedded CCU is well equipped with comprehensive central monitoring, central oxygen supply, 24 hour mobile X-ray, 24 hour mobile echocardiography, Defibrillator, Mechanical Ventilator and IABP support due to which patient care has become more efficient and easier. On-call-cardiologists stay in house 24 hours on top of resident doctors who are on duty. Consultations with other specialists

and subsequent interventions are rendered as necessary. The medical staffs are not only well trained and efficient, but are also dedicated to excellence, compassion and integrity in patient care. The acute coronary cases are predominantly admitted through Emergency Department (ED) as they usually present with acute chest pain. Few are admitted directly through OPD. ECG is taken within 10 minutes on patient's arrival. Patients with STEMI are managed with primary PCI or thrombolysed according to duration of chest pain and affordability of the patient. Rescue PCI is also rendered whenever necessary. Patients with STEMI, NSTEMI and high-risk UA are almost all admitted in CCU. However, patients with low to moderate risk UA are admitted in CCU if beds are available, otherwise in general ward. This article provides a brief outline of ACS admissions in the year 2014. There has been dramatic and consistent increment in the admissions of acute coronary syndromes from 63 patients in the year 2001 to 1429 patients this year as shown in figure.

DEMOGRAPHIC FEATURES

Among 1429 ACS cases admitted in SGNHC, 1019 (71.30%) were STEMI, 214 (14.97%) were

NSTEMI and rest 196(13.71%) were UA. Male preponderance was clearly seen as 1028 (71.93%) were male and only 401 (28.07%) were female.

AGE WISE DISTRIBUTION OF ACS

Among ACS patients, Younger Age population Age ≤45 were 236 (16.51%). Youngest male was of 20 years and youngest female of 25 years of age.

THROMBOLYSIS AND PRIMARY PCI

Among STEMI, rate of Thrombolysis, Primary PCI and Rescue PCI this year were 99 (9.71 %), 163 (15.99%) and 13 (1.27%) respectively. The rate of thrombolysis has decreased compared to last year ((10.77%), whereas the rate of Primary PCI has increased (8.5% last year).

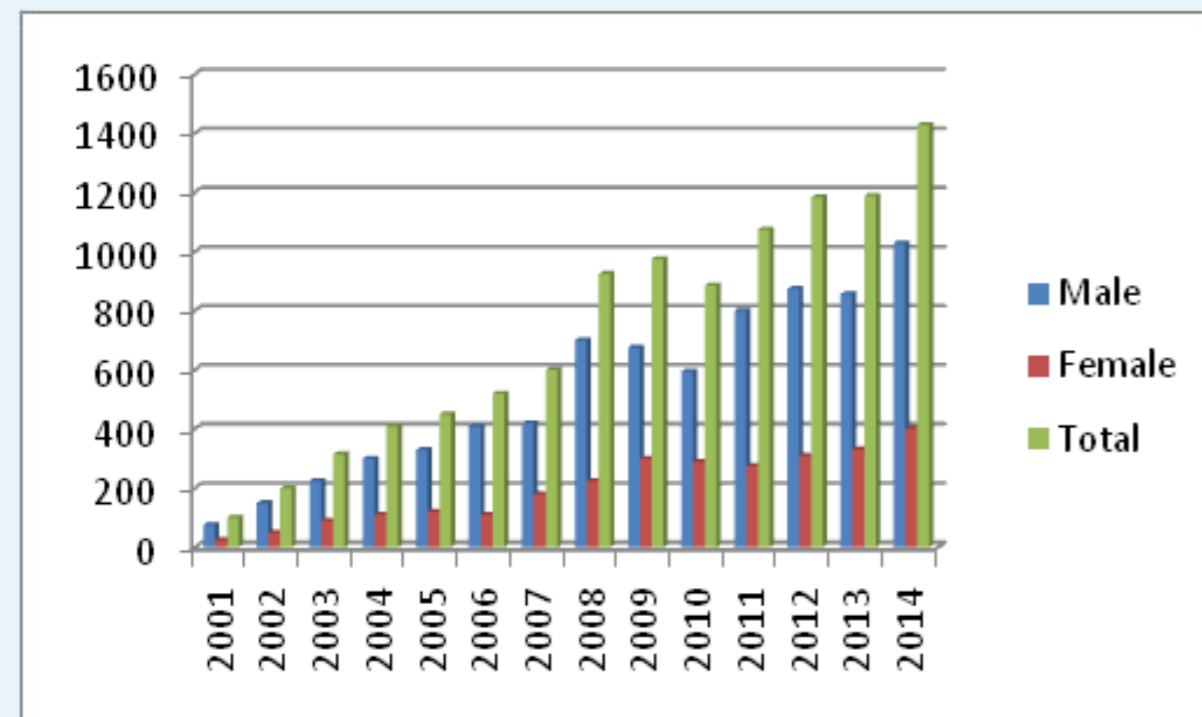


Figure 1: Increasing trend of ACS in SGNHC

ACS admission pattern in SGNHC

DIAGNOSIS TOTAL

ST ELEVATION WALL MI	Total Admission			STK			TNK			Primary PCI			Mortality		
	M	F	Total %	M	F	Total	M	F	Total	M	F	Total	M	F	Total
Extensive Anterior Wall MI	101	43	144 (14.13%)	17	2	19	4	0	4	27	1	28	8	6	14 (23.72%)
Anterior Wall MI	173	59	232 (22.76%)	18	4	22	4	1	5	49	5	54	11	4	15 (25.42%)
Antero Septal Wall MI	79	27	106 (10.4%)	5	2	7	0	0	0	6	2	8	2	0	2 (3.38%)
Anterior and Lateral Wall MI	6	3	9 (0.88%)	0	0	0	0	0	0	0	0	0	0	0	0
Inferior Wall MI	246	83	329 (32.29%)	24	7	31	4	3	7	47	5	52	10	5	15 (25.43%)
Inferior Posterior Wall MI	91	37	128 (12.56%)	0	0	0	1	0	1	18	2	20	5	1	6 (10.16%)
Inferior Posterior Lateral Wall MI	11	2	13 (1.27%)	0	0	0	0	0	0	0	0	0	0	1	1 (1.69%)
Inferior and Lateral Wall MI	2	4	6 (0.58%)	0	0	0	0	0	0	0	0	0	0	0	0
Inferior with RV Infarction	18	5	23 (2.25%)	0	0	0	0	0	0	1	0	1	0	0	0
Lateral Wall MI	17	5	22 (2.15%)	3	0	3	0	0	0	0	0	0	0	0	0
Posterior Wall MI	5	2	7 0.68%	0	0	0	0	0	0	0	0	0	1	0	1 (1.69%)
STEMI	749	270	1019 (71.3%)	-	-	-	-	-	-	-	-	-	-	-	0
Unstable Angina	135	61	196 (13.71%)	-	-	-	-	-	-	-	-	-	0	0	-
NSTEMI	144	70	214 (14.97%)	-	-	-	-	-	-	-	-	-	3	2	-
TOTAL	1028 (71.93%)	401 (21.07)	1429	67	15	82 (8.04%)	13	4	17 (1.66%)	148	15	163 (15.99%)	40	19	59 (4.12%)

Total STEMI		Primary PCI		STK		TNK		Mortality	
M	F	M	F	M	F	M	F	M	F
749	270	148	15	67	15	13	4	40	19
1019		163 (15.99%)		82 (8.04%)		17 (1.66%)		59 (4.12%)	

MORTALITY

The overall mortality of ACS was 59 (4.12%).

The figures are comparable to the figures of west. The mortality in anterior wall MI, inferior wall MI and Extensive Anterior wall MI were higher respectively.

CONCLUSION

The patients with ACS are increasing each year and the young population among them

was noted to be increasing as well. Although we are one of the key centers to provide medical services to cardiac patients, we

still need to upgrade our services regularly. The facilities we are providing are still not enough though. Mortality from CAD can be further decreased by training more efficient and dedicated personnel, extending this health facility to rural areas so that they won't delay treatment until being referred to our Centre, formulation of plans so that best treatment possible for CAD can be cost worthy and feasible to all socioeconomic class. Apart from treatment of ACS, focus should also be concentrated towards the prevention.



MEDICAL INTENSIVE CARE UNIT (MICU)

Dr. Robin Sundar Shrestha, Dr. Anish Hirachan, Dr. Deepak Limbu

INTRODUCTION

Since its establishment in August 2002, MICU services in Sahid Gangalal National heart centre has been uniformly offering medical critical care and supportive management to all types of medico-cardiological cases admitted through the Emergency room. Major illnesses basically include Chronic heart failure due to various etiologies, followed by Valvular heart disease and also different chronic illnesses with multi organ dysfunction like Chronic kidney disease ,Diabetes , Ischemic Heart disease etc.

With the support of our efficient staffs including nursing and medical professionals , the residents and house officers the MICU services has been running smoothly and level of patient care and management has always been well monitored and efficient. The MICU also gives services to the patients admitted with other systemic illnesses like acute exacerbation of bronchitis , chronic

renal failure , septicemia , Pneumonia which often occur along with background history of coronary artery disease .

SERVICES PROVIDED LAST YEAR

This year a total of 673 patients were admitted in the MICU and out of which the total female patients were 291 (43.2%) and male patients 382 (56.8%) . The mean age of admitted patients in the MICU was 60 yrs with the youngest patient admitted was 12 yrs old patient. The eldest patient admitted in our unit was 99 yr old female admitted with the diagnosis of pneumonia /sepsis with Acute kidney injury.

Sex Distribution

SEX	Frequency	Percent
M	291	43.2
F	382	56.8
Total	673	100

The pattern of diseases with which the patient was admitted ranged from

hypertensive emergency to chronic illnesses like COPD , CKD and Cardiomyopathies. The most common cause of admission was Acute coronary syndromes with or without coronary interventions (41.6%) and who required intensive hemodynamic monitoring and supportive care.

Dilated cardiomyopathy with various etiologies (idiopathic , Ischemic, Peripartum etc) was the another leading cause of MICU admission with almost (20.65 %) of the total number of cases .These cases were mostly admitted following the episodes of acute decompensated heart failure and had to managed with aggressive diuresis and with inotropic support and if required ventilatory management with the support of our anesthesia team at the SGNHC.

decisions regarding management in such situations. We also have the facility to take frequent superspeciality consultations bedside as and when required (Nephrology, Neurology, Endocrinology, Neurosurgery) or better decision making and patient care with latest standards. We have been giving frequent bedside Hemodialysis services with help of the team from the National Kidney Centre to the patients requiring temporary Dialysis care in acute setting . We also have the facility of inter hospital referrals as and when required for better patient care and management .

Our MICU services also gives opportunities to those in need for the poor patients who require prolonged ICU management in form of CHARITY FUND and also drugs which

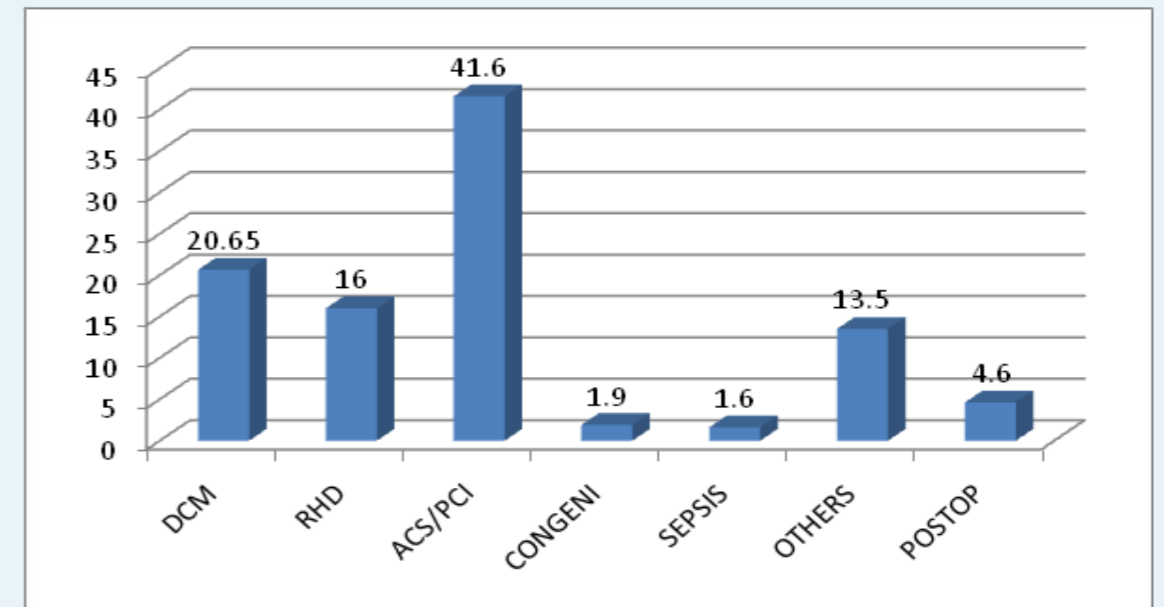


Fig. 1. Bar diagram showing the different disease groups admitted (2014)

Subsequently , Rheumatic heart disease including post MVR (Mitral valve replacement) and AVR (Aortic valve replacement) was another common presenting illness at the MICU (16%).Other diseases under the entity sepsis(1.6%) and others (13.5) included primary respiratory illness with acute exacerbation , asthma , pneumonia with sepsis and MODS , as well as Chronic kidney disease, Diabetic mellitus and keto acidosis. We have our primary physicians as well as well trained cardiologists and DM fellows to make

get supplied from the JAYANTI TRUST.

CONCLUSION

With this year's challenge been done, MICU has and will be working with the same spirit in the patient management. In the upcoming years, the institute is planning to further expand the unit and the number of beds available seeing the rising trend of various Heart failure admissions as well as multisystem illness that get admitted in our unit.



INTERVENTIONAL CARDIOLOGY SERVICES

Dr. Satish Singh, Dr. Krishna P Adhikari, Dr. Dewan Shrestha

INTRODUCTION

Cardiac catheterization is a specialized and rapidly growing branch of cardiology used to diagnose and treat certain heart conditions. Cardiac catheterization and angiography remain the gold standard for the evaluation of anatomy and physiology of the heart and blood vessels. The history of cardiac catheterization dates back to Claude Bernard, who experimented on animal models, however, clinical application of cardiac catheterization begins with Werner Frossmann who did his own right heart catheterization guided fluoroscopically through left antecubital vein. Andreas Gruentzig did the first PCI in human in 1977.

SERVICES PROVIDED

The centre has three state of the art catheterization laboratories and well trained interventional cardiologists and well trained nursing assistants providing both diagnostic and therapeutic interventional procedures. This centre also has been the hub of training for DM cardiology students. Interventional cardiology got established at our centre in the year 2058 BS. The number of procedures is increasing every year with decreasing rate of complications. Total of 4718 procedures were done in this year as compared to 4307 last year. The complication rates are at par with international institutes.

The procedures performed from Jan 1, 2014 to Dec 31, 2014 are shown below:

SN	Procedure	Total
1	Coronary Angiogram (CAG)	2671
2	Percutaneous Transluminal Coronary Angioplasty (PTCA)	834
3	Percutaneous Transmitral Commissurotomy (PTMC)	328
4	Permanent Pacemaker Implantation (PPI)	213
5	Electrophysiology Study/ Radiofrequency ablation (EPS/RFA)	209
6	Temporary Pacemaker Implantation (TPI)	187
7	Primary Percutaneous Coronary Intervention (PPCI)	97
8	Right Heart Catheterization (RHC)	71
9	Balloon Pulmonary Valvuloplasty (BPV)	26
10	Peripheral Angiography (PAG)	25
11	ASD Device Closure	31
12	Renal Angiogram/Angioplasty	8
13	PDA Device Closure	4
14	Coil Embolisation	4
15	Others	10
Total		4718

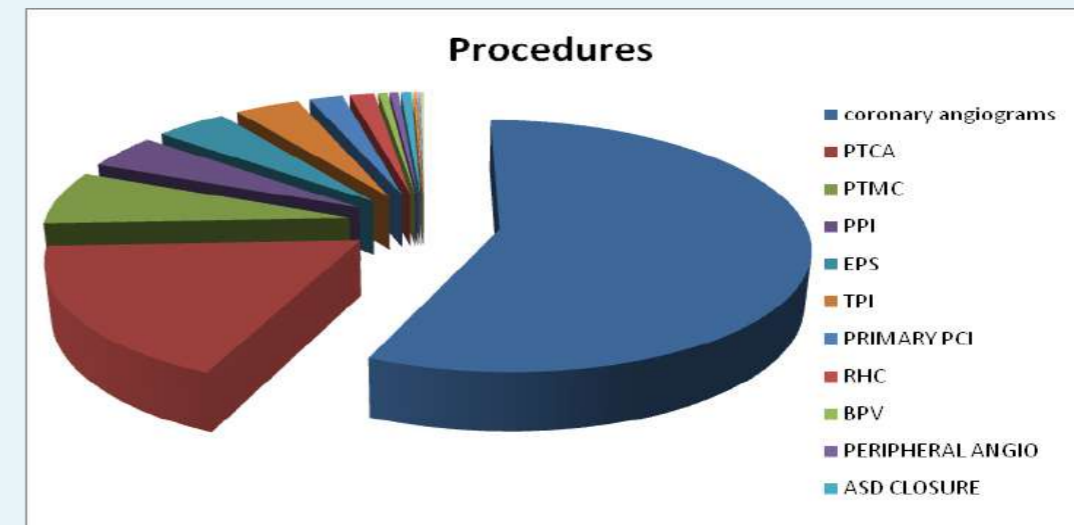


Fig. Comparison of no. of procedures and cases performed from 2008 to 2013

CONCLUSION

SGNHC has established its reputation as the best centre for cardiac catheterization in Nepal. Every effort is being done to provide best possible care of international standard with the dissemination and

sharing knowledge and experience with the best experts from India, USA, Japan and others. Evidence based practice with excellence at affordable price is our goal. We are committed to further our endeavor to the service of the mankind.



CARDIAC ELECTROPHYSIOLOGY AND DEVICE IMPLANTATION

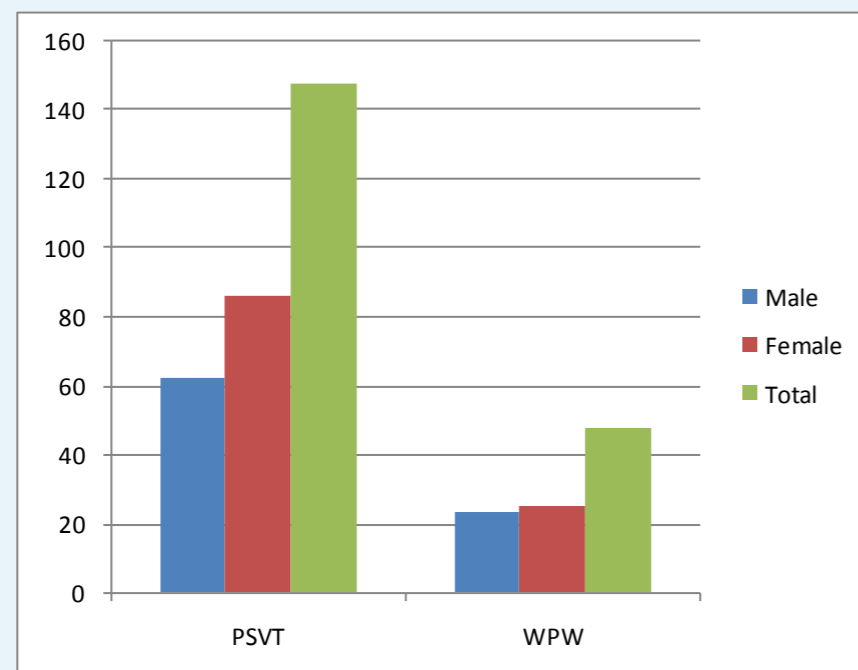
Dr. Rishikesh Rijal, Dr. Mukunda Sharma, Dr. Murari Dhungana,
Dr. Sujeeb Rajbhandari, Dr. Man Bahadur K.C.

Shahid Gangalal National Heart Centre is providing various electrophysiological services since 2004 AD in an accepted international standard. Our EP team holds the responsibility of providing services in terms of diagnosis and treatment of

various conditions associated with rhythm disturbances.

The different services provided by Electrophysiology Unit in year 2014 are given below:

DISTRIBUTION OF EP PROCEDURE

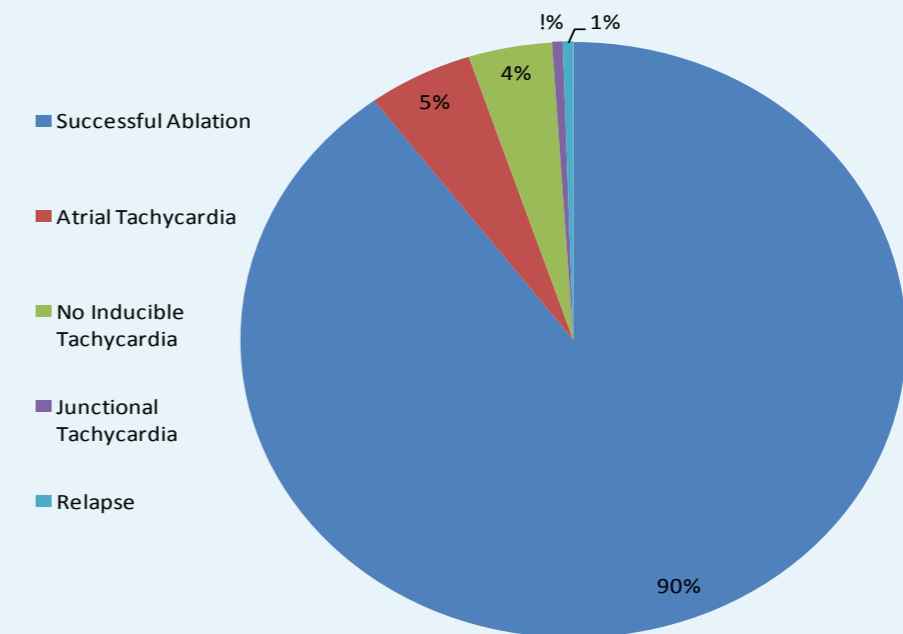


The Distribution of EPS Diagnosis (Pathways) are as follows:

DIAGNOSIS	MALE	FEMALE	TOTAL
Typical AVNRT	36	62	98
Concealed Left lateral	9	12	21
Left Postero-septal	3	1	4
Left Lateral	7	12	19
Left Posterior	1	0	1
Left Lateral Epicardial	1	0	1
Right Postero-lateral	0	6	6
Right Anterior	1	1	2
Right Posterior	3	3	6
Right Postero-septal	2	2	4
Right Lateral	1	0	1
Posterior septal	1	0	1
Posterior septal Epicardial	1	2	3
Concealed Left Posterior	3	0	3
Concealed Parahisian	1	0	1
Concealed Left Antero-lateral	2	0	2
Concealed Posterior Epicardial	1	0	1
Atrial Tachycardia	4	6	10
Free Wall	1	1	2
Multiple Pathway	0	1	1
Junctional	0	1	1
No Inducible Tachycardia	4	4	8
TOTAL	82	114	196

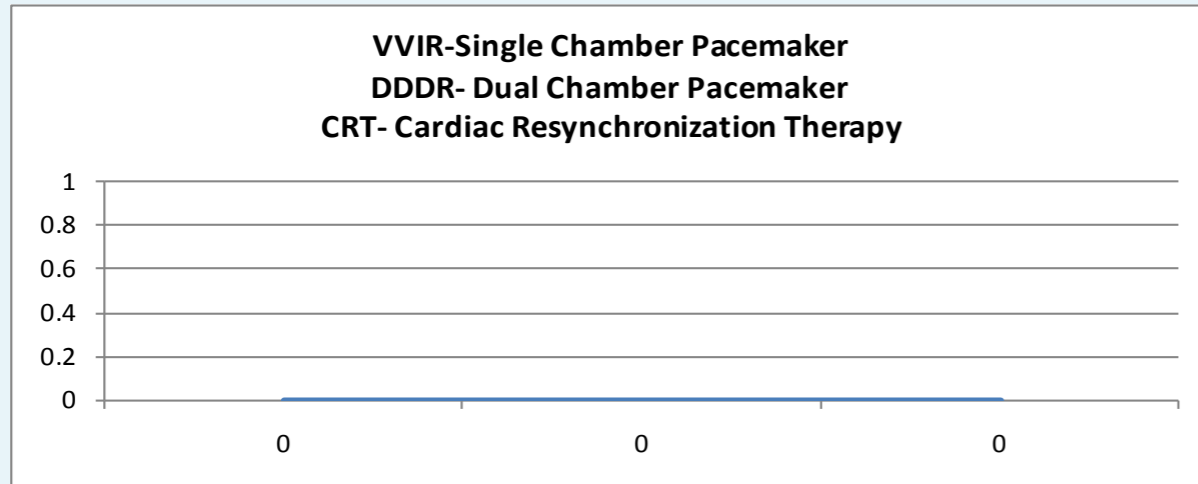
Note: AVNRT- Atrioventricular Re-entry Tachycardia

OUTCOME OF EPS PROCEDURE



DEVICE IMPLANTATION

Total 202 devices were implanted in year 2014 as:



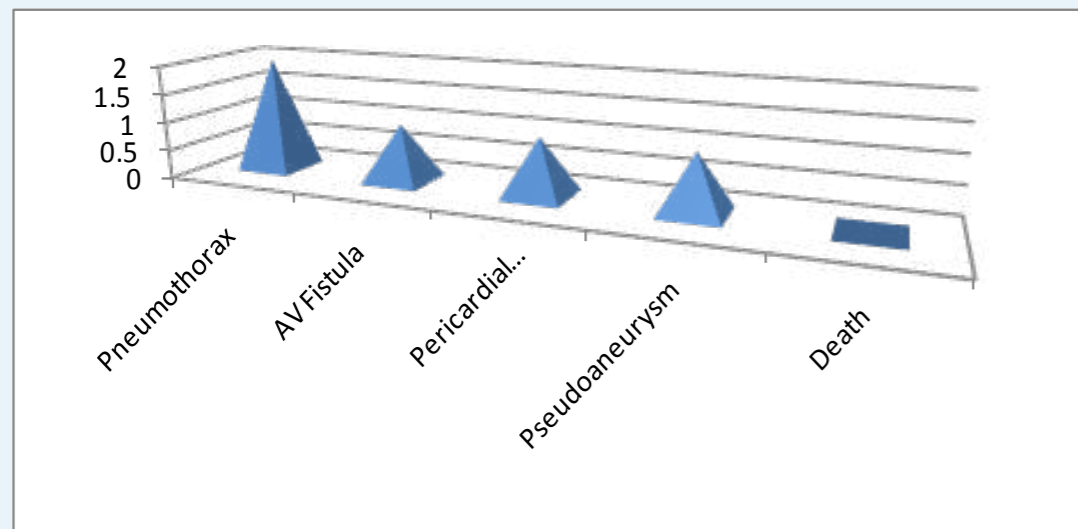
INDICATORS OF DEVICE IMPLANTATION

OUTCOME	TOTAL
Complete Heart Block (CHB)	168
Sick Sinus Syndrome (SSS)	20
2:1 AV Block	6
3rd Degree AV Block	6
Bifascicular Block	1
LV Systolic Dysfunction with CHB	1
TOTAL	202

CONCLUSION

Despite Scarcity of manpower, Electrophysiology Unit at SGNHC aims at achieving international standard of care. All dedicated team members at present are giving their best service. In future, Department plans to establish more advanced facilities like electro-anatomical mapping system and regular services in CRT/CRT-D and AICD etc devices implantation.

COMPLICATIONS OF DEVICE IMPLANTATION



EMERGENCY SERVICES

Dr. Rabindra Pandey, Dr. Sudir Regmi, Dr. Miqdhaadh Shareef, Dr. Ashwani K. Gupta, Dr. Roshani Ghimire

INTRODUCTION

The Emergency Department (ER) of Shahid Gangalal National Heart Centre (SGNHC) provides high quality and fast service, which should be an example to any health institute. Since the establishment of SGNHC, it has strived hard to attend to all cardiac emergencies arriving at its ER from all corners of Nepal efficiently. The team of cardiologists, cardiac surgeons, resident doctors and well trained nurses and other supporting staff provide prompt care for the all patients 24 hours a day.

SERVICE PROVIDED

ECGs are obtained for all patients within 5-10 minutes of arrival in the ER, as recommended by the AHA/ACC guidelines.

Patients with acute ST-elevation myocardial infarctions receive either thrombolysis (door to needle time) within 30 minutes, or primary PCI (door to balloon time) within 90 minutes of arrival in the ER, as recommended by the AHA/ACC guidelines. All patients are transferred directly to the

CCU from the ER (or cath. lab.) without delay.

Patients with unstable angina and NSTEMI are promptly shifted to the ICU within 15 minutes, after being given the immediate treatment. Patients with low to moderate likelihood of coronary artery disease are admitted for “chest pain under evaluation”, and are scheduled for treadmill test (TMT) and/or coronary angiography.

All forms of arrhythmias, including life-threatening arrhythmias are managed promptly. Patients coming to the ER life-threatening bradyarrhythmias undergo immediate temporary pacemaker insertion, without delay. Patients in pericardial tamponade undergo emergency pericardiocentesis immediately. Non-cardiac emergencies are assessed and referred to concerned centres, as required.

The present ER has been expanded as per the demand of the ever increasing number of patients arriving in it. Altogether, there are at present 18 beds (9 beds in the ER, and 9 beds in the ER Observation). On an

average, 35 – 45 patients attend the ER daily.

Relevant and essential emergency investigations, including cardiac enzymes, Troponin I, routine blood counts, biochemistries, ABG analysis, ECG, portable X-rays, bed-side echocardiographic screening are available 24 hours a day.

ER and ER Observation are equipped with bedside monitors (for monitoring of ECG rhythm, SPO2 and non-invasive blood pressure). Central oxygen, suction facilities, defibrillators and crash-cart with all emergency drugs and equipment are also available. This setup is ideal for provision of advanced cardiovascular life support promptly, whenever it is required.

Table 1: ER attendance in the year 2014

Male	Female	Admission	Discharge	Referred	LAMA	Mortality	BD	Total
7227	5737	3968	7245	1446	216	46	43	12964
55.75%	44.25%	30.61%	55.89%	11.15%	1.67%	0.35%	0.33%	100%

Table 2: Admissions made through ER in 2014 to different wards

General Ward		Cabin		Deluxe	CCU	MICU	SICU	PICU	NMW	NSW	ER Obs	Cath Obs
A	B	Single	Double									
525	56	492	417	7	1066	349	14	5	391	5	606	35
13.23%	1.41%	12.40%	10.51%	0.18%	26.86%	8.80%	0.35%	0.13%	9.85%	0.13%	15.27%	0.88%

Table 3: Presenting Complains

Complaint	Number	Percentage
Chest pain	3999	30.85%
Shortness of breath	3922	30.25%
Dizziness	1422	10.97%
Palpitation	1047	8.08%
Headache	807	6.22%
Epigastric pain	485	3.74%
Swelling of body	253	1.95%
Nausea/ vomiting	230	1.77%
Slurring of speech	215	1.67%
Epistaxis/ haemoptysis/ black stool	169	1.30%
Others	415	3.20%

Table 4: Provisional/Clinical Diagnosis

Hypertension	2867	22.12%
Coronary artery disease	2532	19.53%
Rheumatic / valvular heart disease	1603	12.37%
Cardiomyopathy	902	6.96%
COPD / Respiratory tract infection	875	6.75%
Arrhythmias	864	6.66%
Acid-peptic disease	810	6.25%
Anxiety disorder	464	3.58%
Congenital heart disease	210	1.62%
Cerebrovascular disease	205	1.58%
Pericardial disease	102	0.78%
Vascular disease	75	0.58%
Others	1455	11.22%

CONCLUSION

These data reveals the immense effort done by the SGNHC ER. With the motto “Cardiac emergencies be dealt emergently”, SGNHC is working hard to meet the needs of cardiac patients all over Nepal.



MEDICAL WARD

Dr. Dharmanath Yadav, Dr. Sanjay Singh KC, Dr. Sebina Baniya, Dr. Sagun Khanal, Dr. Bibek Baniya

INTRODUCTION

Since the establishment in 1999 as a 9 bedded unit, general medicine unit in our hospital has evolved as a 66 bedded (21 in general ward, 14 in New medical ward, 11 in double Cabin, 18 in Single Cabin and 2 in Delux Cabin). With this Capacity it has provided its services to patients from all over the country and from abroad as well.

The patients are finally pooled up through both direct admissions and the transfer of stabilized patients from the critical care units to medical ward. So, medical ward is the only unit which can truly reflect the disease pattern of this cardiac center. In this article we provide a brief outline of the disease pattern from Jan 1ST 2014 to Dec 31 2014.

DISEASES WISE DISTRIBUTION OF CASES IN THE YEAR 2014

S. No.	Name of Diseases	No. of cases			% of Total
		Male	Female	Total	
1	CAD	1550	769		44.6%
2	VHD	133	146		13.68%
3	RHD	173	285		8.8%
4	Arrhythmia	240	159		7.6%
5	HTN	217	125		6.5%
6	CHD	31	43		1.4%
7	DCM	393	318		13.6%
8	COPD	37	44		1.5%
9	Pericardial Effusion	36	49		1.6%
10	Non Specific Chest Pain	74	73		2.83%
11	IE	41	13		1.03%
12	Others	122	123		4.7%
Total		3047	2147		100%

DISEASE DISTRIBUTION

A total of 5194 patients were admitted in medical ward last year. Most of the patients admitted were Coronary artery disease (44.6%) followed by dilated cardiomyopathy (13.68%) and rheumatic heart disease (8.8%). Patients admitted as case of arrhythmia, VHD, hypertension, CHD, COPD, IE were 7.6%, 5.3%, 6.5%, 1.4%, 1.5, 1.03,% respectively.

Others category included Pulmonary Embolism, Pulmonary edema, Chest Infections, Aortic Dissections, Peripheral Vascular disease etc.

Others category included Pulmonary Embolism, Pulmonary edema, Chest Infections, Aortic Dissections, Peripheral Vascular disease etc.

CONCLUSION

With the ever increasing number of patients in the hospital, the medical ward works as an important unit to serve the most number of patients in the hospital and as an transit between critical care and discharge. With the plan to increase bed capacity, it will serve better in the days to come.



DEPARTMENT OF CARDIAC REHABILITATION AND HEALTH PROMOTION

Pushpa Neupane, Sunita Pokhrel

INTRODUCTION

Department of Cardiac Rehabilitation and Health Promotion is one of key department of Shahid Gangalal National Heart Center, playing important role in primary and secondary prevention of cardiovascular



disorder by a comprehensive, education, behavioral modification and exercise program in order to improve the social and psychological condition of patients allowing them to

resume as normal a place in the community.

Entire activities of this department are guided by four basic principles of health promotion. We conduct free cardiac camps, community awareness programs, school health programs; produce health education materials etc in order to raise health awareness among the people. We provide counseling service to the patients indoor and outdoor basis regarding their disease process, planned intervention and life style modification. Moreover, we have been conducting structured education program for patients with coronary artery disease and its risk factors. In addition we are conducting various research activities.



PROGRESS REPORT

FREE CARDIAC CAMPS

SN	Camp date	Place	Total participants	Total Echo	Total ECG
1	16th Feb 2014	Mohattari	150	56	67
2	28th Feb 2014	Imadol	353	110	113
3	22nd March 2014	Dumariya, Sarlahi	1150	277	251
4	23rd & 24th March 2014	Simara	928	214	341
5	3rd May 2014	Bansbari, Kathmandu	345	96	100
6	17th May 2014	Galeshwor, Beni	762	113	196
7	13th December 2014	Myagdi	1100	277	251
8	2013-Decr-14	Sarlahi	437	94	150

Total

In the year 2014 we had conducted seven free cardiac camps for the purpose of screening cardiac diseases in different areas of Nepal. During these screening programs we had received 4,788 participants who were directly benefited by the program. There were done 1143 and 1319 Echocardiography and electrocardiography respectively.

Indoor Counseling

Counseling is one of the regular basis services in our hospital that is provided to the admitted patients especially focused on pre discharged patients. During counseling we noted their queries and counseled about disease condition, life style modification and carry out regular exercise according to their health condition. In the year 2014 we

counseled 2325 patients and their visitors individually. Moreover patients are referred for structured education program too in order to deliver more intensive education for them.

INDOOR COUNSELING

This is our regular facility to provide counseling service for admitted patients. In 2013 we counseled 2359 patients and their visitors. During counseling, we educate them for making healthy food choice, carry out regular exercise according to their health condition, and motivate



them for enhancing treatment compliance and more about disease and its related conditions. Moreover patients are referred for structured education program too in order to deliver more intensive education for them.

OUTDOOR COUNSELING

This department has extended outdoor counseling services also. It targets for educating patients and visitors who have

attended outpatient department as well as indoor patients. Hypertension and Diabetes are the most common topic we counsel for, followed by Heart Attack and its risk factors, Valvular Heart Disease, Heart failure etc. In 2014, we counseled 6697 patients and their family members.

STRUCTURED EDUCATION PROGRAM (SEP)

Structured Education Program is a weekly awareness program which runs every Tuesday and is designed for patient with coronary artery disease (CAD) and its risk factors. Its primary objective is to prevent and manage CAD and its risk factors. It can also help patients who are recovering from a heart attack, as well as those who recently had heart surgery. Benefits of a this cardiac rehabilitation program can include reduced cardiac symptoms, better long-term survival, weight loss, improved cholesterol and triglyceride levels, improved blood pressure, lower blood sugar levels in diabetics and reduced stress.

One cycle of program consists of eight different classes. Currently, we have been running 18th cycle.

COMMUNITY AWARENESS PROGRAM

It is a community based awareness program. In 2014 we have conducted 2 programs in

two places in Lalitpur.

HEALTH EDUCATION MATERIAL PRODUCTION

Our department has been serving as a resource center for health education materials. We have produced plenty of brochures, posters, pamphlets and power point presentations. It provides free access of these materials for patients, health care providers and other institutions.

OBSERVATION OF SPECIAL DAYS

Every year we celebrate World Hypertension Day and World Heart Day. In World Hypertension Day, we conducted free blood pressure screening and counseling service in Trade Tower and City Center. About 1000 people were participated in these programs. Likewise on World Heart Day, we conducted work site wellness program at Shahid Gangalal National Heart Center, about 150 employees had participated in this program.

RADIO PROGRAM

There is regularly broadcasting of Public Service Announcement (PSA) about hypertension, heart attack, rheumatic heart disease and seven rules of healthy heart in Radio Sagarmatha.

NURSING DEPARTMENT

Krishna Kumari Subedi

“Nurses are the hospitality of the Hospital.”

-Carrie Latet

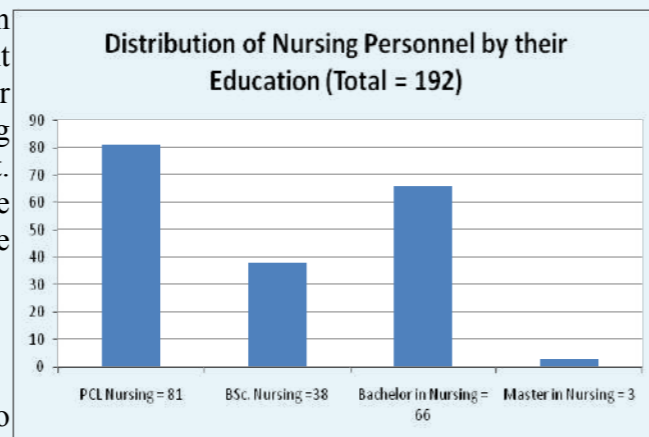
ACHIEVEMENTS AND CHALLENGES

Nursing department is an important and the biggest department of Shahid Gangalal national heart centre. It consists about 50% human resources of this centre. Nurses have involved her from the beginning since its establishment; however it is recognized as a department from 2059 when Department chief was appointed. Currently, there are 188 nurses with different educational background working here. As it is said by Dag Hammarskjold “Constant attention by a good nurse may be just as important as a major operation by a surgeon”, our nurses are so expert in caring, counseling and good in leadership and management. No doubt, they are able to dispense comfort, compassion, and caring with huge enthusiasm and high speed.

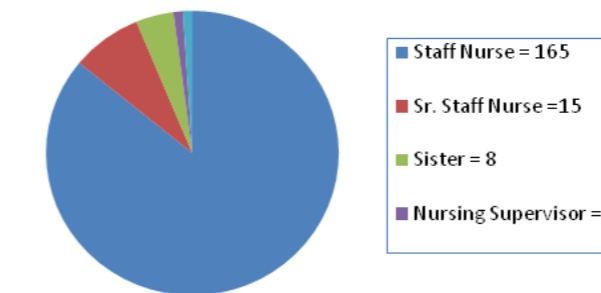
SERVICE PROVIDED

We nurses are one of the personnel who work 24 hours a day and seven days a week

in the hospital. Nurses in Shahid Gangalal national heart centre perform multifaceted tasks ranging from merely caring simple patients to caring of complex patient suffering from myocardial infarction, unstable angina, congenital heart diseases, heart failure and so on along with handling latest technology and rendering excellent counseling services to the patients and visitors. There are 17 units in the hospital and all units are managed by the nursing in-charges from general ward to CCU or CSSD.



Distribution of Nursing Personnel by their Position (Total = 192)



FUTURE PLAN

1. Initiating nursing research: In order to develop strong scientific basis of nursing practice of the profession and to develop significant body of knowledge to advance clinical practice we feel there is dire need to initiate nursing research which hasn't been prioritized till date.
2. Introducing nursing audit: No doubt, nurses are doing very good services but it needs to be proven by formal documentation along with mentioning the aspects that need to be improved. For this our service is to be evaluated by using standard tools and methodology; this is known as nursing audit.
3. Modifying our current in-service education as per emerging issues:

maintaining and upgrading nurse's skills and knowledge is essential to promote quality nursing care, we have therefore, planned to explore new emerging issues and solutions to overcome those issues. Our in-service education will be turned toward this modality.

4. Providing more training to the nurses: To make our nurses more skillful, updated and maintained more training programs will be planned and initiated for the nurses.

5. Practicing participatory leadership and management technique: Too often, nurses may feel burned out because of constant witnessing of pain, suffering and demise of patients. Keeping these things in mind, we have planned to intensify morale of our nurses by practicing participatory leadership style and providing respect and recognition to them.

CONCLUSION

No doubt, our nurses are the heart of Heart centre and we all know that nursing department is an important and the biggest department of this organization. It consists nearly 50% human manpower of the organization. In order to maintain their energy and speed, organization definitely should have some energy boosting plans.

“You treat the disease you win, you lose. You treat the person, I guarantee you, you will win, no matter what the outcome.”

-Patch Adams



PATHOLOGY SERVICES

Dr. Bipesh Acharya

INTRODUCTION

Quality service provided by the laboratory show the true image of the entire hospital. Laboratories in Nepal today face increasing pressure to automate their system as they are challenged by a continuing increase in workload, need to reduce expenditure and difficulties in recruitment of experienced technical staff. The implementation of a laboratory automation system in the Clinical labs rely on minimizing laboratory errors, staff satisfaction and the outcome of the end result. Considerable effort is needed to overcome the initial difficulties associated with adjusting to a new system new software, new working procedure.

PRESENT CONTEXT

1. With the increasing charm in automation at present department is equipped with

following equipments:

2. Automated Five Parts and three parts Differential Cell Counter.
3. Fully automation biochemistry machine.
4. Fully automated coagulation machine.
5. Separate Blood bank.

OVERVIEW

- The Following details of the responsibilities of clinical laboratory:
- Hematology works with whole blood to do full blood counts and blood films as well as many other specialised tests.
- Coagulation requires citrated blood samples to analyze blood clotting times and coagulation factors.
- Clinical Biochemistry usually receives serum or plasma. They test

the serum for chemicals present in blood. These include a wide array of substances, such as lipids, blood sugar, enzymes, and hormones.

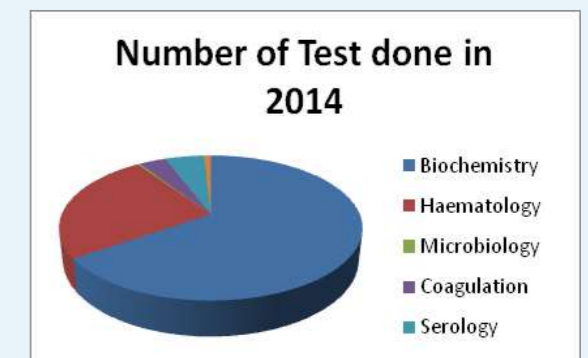
- Microbiology receives clinical specimen including swabs, feces, urine, blood, sputum, cerebrospinal fluid, synovial fluid, as well as possible infected tissue. The work here is mainly concerned with cultures, to look for suspected pathogens which, if found, are further identified based on biochemical tests. Also, sensitivity testing is carried out to determine whether the pathogen is sensitive or resistant to a suggested medicine. Results are reported with the identified organisms and the type and amount of drugs that should be prescribed for the patient.
- Parasitology is a microbiology unit that investigates parasites. However, blood, urine, sputum, and other samples may also contain parasites.
- Virology is concerned with identification of viruses in specimens such as blood, urine, and cerebrospinal fluid.
- Immunology/Serology uses the concept of antigen-antibody interaction as a diagnostic tool.
- Blood bank determines blood groups, and performs compatibility testing on donor blood and recipients. It also prepares blood components, derivatives, and products for transfusion.
- Histopathology processes solid tissue removed from the body biopsies for evaluation at the microscopic level.
- Cytopathology examines smears of cells from all over the body such as from the cervix for evidence of inflammation, cancer, and other conditions.

Number of test done in 2014

- Biochemistry 425216 test
- Haematology 162320 test
- Microbiology 2125 test
- Coagulation 22215 test
- Serology 32506 test
- Blood donation 5521 test
- Special test 6112 test

MORE ACHIEVEMENTS

Automation upgraded in biochemistry.
Daily QC analysis in biochemistry.
Regular QC analysis in Haematology.
Regular QC analysis in Coagulation.
Conducted blood donation programme



with acquisition of local youth club which minimizes the problem for the patient to manage the blood components. Able to manage and minimize the rush of phlebotomy section by providing prompt reports and quality services.

FUTURE PLAN

- To established highly standard emergency laboratory
- Automation in the microbiology in detection and isolation
- Provision of blood bank services with fully Automated Blood Component separation and cross match machine.
- Introducing Laboratory information system to the hospital information system along with electronic reporting system.
- To start Histopathology, Cytopatology and Bone marrow studies.



RADIOLOGY SERVICES

Indesh Thakur

Radiology is one of the most important & trusted branches of medical science. It is an integral part of health care delivery system without which no medical treatment & therapy can be successfully bestowed. As our hospital is a specialized and dedicated health care centre for cardiac patients, so radiology service, here is specially predestined and rendered for diagnosis & prognosis for relevant cardiac disease and its periphery.

HISTORY

At SGNHC, radiology service commenced from 2055 B.S. along with hospital OPD services. In the beginning, this service was provided with one mobile X-ray unit & manual processing system both for OPD Patients and IPD Patients. The number of patients attending for x-ray examination was less at that time. One radiographer &

one dark room operator were appointed for the radiology services & that too during day period only.

PRESENT SCENARIO

Radiology services at SGNHC boost up by leap and bound operating for 24 hours a day. Today, we serve on an average 140 patients each day. Here, we provide digital imaging services (Computed Radiography) from both OPD Radiology unit & IPD Radiology unit. The CR services started at this centre from very start of the year (2066 B.S.). Now, our radiology department is allocated with the following sophisticated equipments:

1. Three CR reader units (Konica Minolta, Japan)

2. Two Dry Laser Imagers (Konica Minolta, Japan)
3. One fixed 800 mA X-ray Unit (Hitachi, Japan)
4. One fixed 500 mA X-ray Unit (Quantum medical imaging, USA)
4. One mobile 400 mA X-ray Unit (Shimadzu, Japan)
5. One mobile 250 mA X-ray Unit (Hitachi, Japan)
6. One mobile 100 mA X-ray Unit (Siemens, Germany)
7. One mobile 100 mA X-ray Unit (Medx Tech., India)

Very soon, we are going to add one more 500 mA fixed X-ray machine & one 100 mA mobile X-ray machine to our department.

HUMAN RESOURCES

- 1. One Radiologist
- 2. One Sr. Radiography Technologist
- 3. Two Radiography Technologists
- 4. Nine Radiographers
- 5. One Sr. Dark Room Operator

Our staffs are posted in OPD Radiology & IPD Radiology units as well as in Cath Labs. We perform all kinds of general radiography with particular emphasis on chest radiography & bed side radiography in all wards such as ASICU, PSICU, ER, MICU, CCU, GW, etc. In SGNHC, we have three state of the art Cath Labs (Two Philips Integris, Netherlands & One Siemens Cath Lab, Germany). These units are in full operation performing about 15 to 20 cases per day. Radiology manpower are concomitant to Cath Lab for a number of invasive procedures like CAG, RHC & LHC, Peripheral Angiograms,

Interventional procedures (PTCA, PTMC, BPV, BAV, Device Closures, PPI, TPI, EPS and Ablation etc.) assisting the cardiologists & radiologists concerned.

FUTURE PLAN

Very soon, we are going to equip our radiology department with sophisticated Digital Radiography (DR) System & x-ray reporting as well as USG services will be provided on regular basis too. We have plans to upgrade our departmental services with PACS, Multi-Slice CT (MS CT), Nuclear Medicine Imaging Technology (NMIT), MRI modalities etc. to provide all kinds of confirmatory diagnostic services to cardiac patients.

OTHERS

As in many aspects of medicine, there are both benefits and risks associated with the use of x-ray imaging which utilizes ionizing radiation to generate internal images of the body. As SGNHC is especially dedicated to diagnose and treat diseases related to heart, therefore the use of medical x-ray is of mere compulsion. In SGNHC, we perform on an average 40 portable x-ray examinations in a day while OPD x-ray examinations are about 120 cases per day. While the benefit of clinically appropriate x-ray imaging examinations generally far outweighs the risks, every effort should be made to minimize those risks by reducing unnecessary exposure to x-rays to help reduce risks to the patients. All examinations using ionizing x-ray radiation are performed only when it is essential & clinically justified. However, ALARA (as low as reasonably achievable), TDS (Time Distance Shield) principle should always be followed when choosing equipment settings to minimize radiation exposure to the patient.

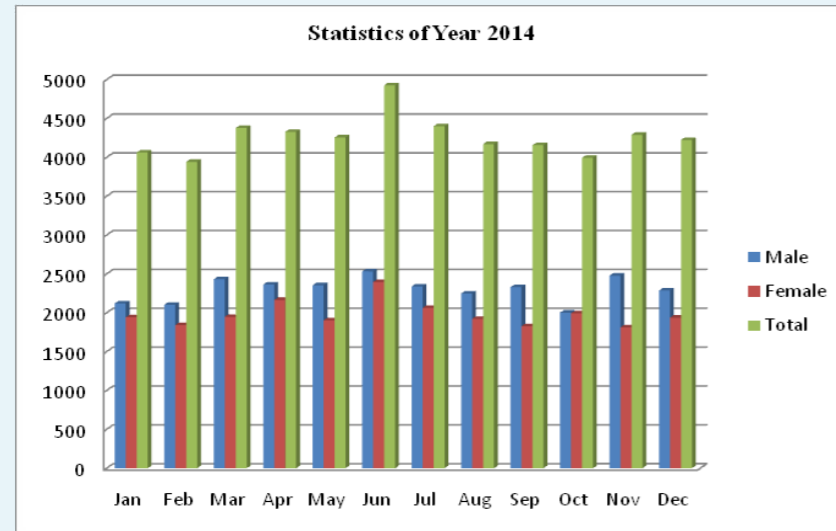
In doing so, we not only minimize the

risks to the patient but also to ourselves as operators. In case of portable x-rays, there is always a chance of scattered radiation to arise as in other cases. Therefore, x-rays especially, the portable x-ray examinations, should be performed only when there is dire necessity. By doing so, we not only radiographers but also nursing staffs,

doctors & others will be benefitted from required x-ray examinations.

CONCLUSION

Radiology services at SGNHC are fully dedicated digital radiography services & are full fledged in operation.



Total patients: 51130



PHARMACY UNIT

Atmaram Timalisina

Hospital Pharmacy is a department in which the drugs are procured, stored, compounded, checked for quality, manufactured, packed and distributed to in-patients and out-patients by competent and legally qualified pharmacists. It is an important department which caters the need of physician, nurses, technicians and other staff members of hospital. It also provides drug information and drug monitoring services. Hospital Pharmacy exerts a great deal of influence on the professional stature of the hospital as well as upon the economics of the total operational cost of the institution because of its inter-relation with and the inter-dependency of these other services upon it. Apart from these, the practice of pharmacy in hospital setting also includes broad responsibility for safe and appropriate use of drugs in patients, including rational drug selection, monitoring, dosing and control of patient's overall drug-therapy.

Sahid Gangalal National Heart Centre has its own hospital pharmacy. Almost every medicine included in hospital formulary and surgical products required in hospital are available in the pharmacy. It has indoor and outdoor pharmacy dispensing unit for the servicing facility to indoor and outdoor patients where medicines are dispensed

with sufficient counseling. Medicines are dispensed to patients by registered pharmacists and pharmacy assistants in accordance with prescriptions.

ASPECTS OF PHARMACEUTICAL CARE

Total (1 pharmacist, 5 pharmacy assistants, 4 health assistant)

Working hours

Indoor Pharmacy: 24 hours

Outdoor pharmacy: 12 hours

Store and ward supply pharmacy: 8 hours

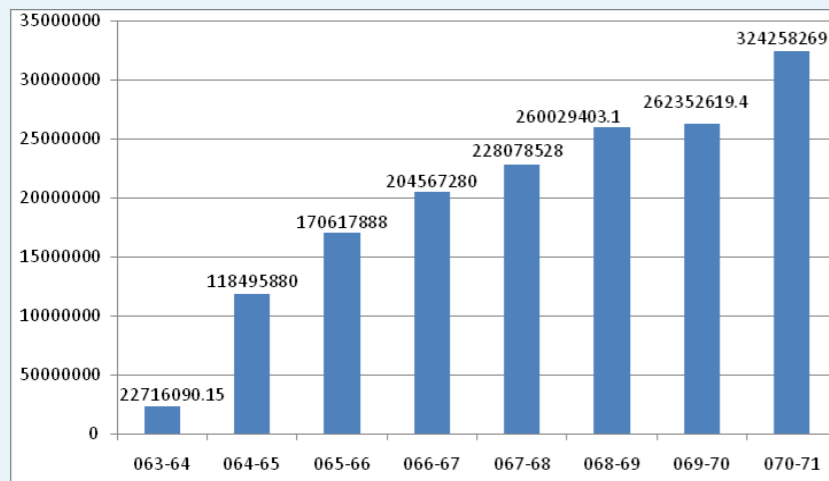
ACTIVITIES PERFORMED

- a) Purchasing – contracting, ordering and receiving
- b) Ware housing- storage and restocking
- c) Housekeeping
 - 1) Inventory management
 - 2) 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 has increased as shown in the diagram. (Transaction in amount (NRs.) has



shown at the top of the bar of corresponding year)

FUTURE PLAN

a) Initiate therapeutic monitoring of drugs having narrow therapeutic index and inter-pharmacokinetic variables.

b) Establishment of drug information centre.

c) Initiate drug and cost related research activities.

d) Drug counseling.

e) Floor stock system.

f) Initiate drug interaction surveillance and program implementation to reduce harms associated with it.



PHYSIOTHERAPY SERVICES

Dr. Shaili Thapa Budhathoki

INTRODUCTION

Physiotherapy is a scientific physical procedure used in the treatment of patients with a disease, injury or disability to achieve and maintain functional rehabilitation and to prevent malfunction or deformity. Treatments are designed to minimize residual physical disability, to hasten convalescence, and to contribute to the patient's comfort and well-being.

Physiotherapy is a health care profession concerned with human function, movement and maximizing potential. It is a well established branch of medical sciences being practiced at global level. Its treatment can be given to patient both in isolation and in conjunction with other types of medical and surgical management. Used in conjunction with certain medical or surgical techniques; physiotherapy can complement these techniques to help provide a speedy and complication-free return to normal activity.

In addition to direct patient care, physiotherapists are involved in other areas including consultation, supervision, teaching, administration, and research.

Physiotherapy can help individuals by:

- Identifying the problem area and treating this directly.
- Identifying the causes and predisposing factors.
- Providing Rehabilitation following occupational or sporting injuries.
- Providing rehabilitation and exercise before and after surgery.
- Providing advice on exercise programs.
- Providing or advising on special equipment.

Physiotherapy unit of SGNHC is an integral part of Cardiac Rehabilitation and Health

Promotion Department. It is well equipped and is located on the ground floor with a large waiting lounge for the patient and the visitors. It plays the vital role in prevention and management of cardiac disease.

HUMAN RESOURCES

At present our unit has one physiotherapist and two physiotherapy assistant. We hope to add further on it to cope with the load in future.

Physiotherapist - 1

Sr. Physiotherapy Assistant - 1

Physiotherapy Assistant - 1

SERVICE PROVIDED

Physiotherapy unit at SGNHC have been giving its best service to the patients since 2057 B.S. It provides both in-patient and out-patient services regularly six days a week.

For inpatient most often physiotherapy unit at SGNHC deals with the function of the cardio-pulmonary and vascular system. The Cardio-pulmonary and vascular physiotherapy aims to optimize the function of the Cardio-pulmonary and vascular system and patient comfort resulting in reduced chance of developing complications such as chest infections, reduced shortness of breath, prevent DVT and other musculoskeletal problems, increased exercise tolerance, and reduced length of stay in hospital.

With the motto “MOVEMENT FOR HEALTH”; this year we are proud to announce that we have been able to open the well equipped fitness center in the physiotherapy unit of our hospital and we are successfully running the morning FITNESS PROGRAM for the well-fare of all the staff working at the SGNHC regularly.

We have also been effectively running cardiac rehabilitation program. This year with effective inpatient cardiac rehabilitation (phase I) program we are also successful to enroll the out-patient and run the out-patient cardiac rehabilitation (phase II) program.

Under the Cardiac Rehabilitation program, Structured education program (SEP) for coronary artery disease which have been running successfully every Tuesday of every week since 2012, Where Physiotherapy unit is also conducting the classes about the importance and benefits of the exercises for the patients and their visitors which have been a knowledgeable and very useful for the patients and the visitors.

Some of the treatment techniques used and activities done by physiotherapist for the patient care at SGNHC:

- Patient positioning
- Oxygen therapy and nebulizer
- Breathing techniques either to reduce shortness of breath or increase lung expansion and to prevent atelectasis.
- Incentive spirometer
- Sputum clearance with Autogenic drainage, postural drainage, percussion, vibrations, huffing, coughing, deep breathing, segmental breathing, ACBT, FET, suction.
- Mobilizing, sitting out of bed, walking and gait training.
- Medications used for aerosol therapy and other required analgesics for phonophoresis
- Exercise programs and exercise prescription.

For outpatient we provide services to the entire patient with cardio-thoracic, musculoskeletal and neurological disorders who are seeking physiotherapy treatment.

STATISTICAL DATA OF THE YEAR 2014 (2070-2071 B.S.)

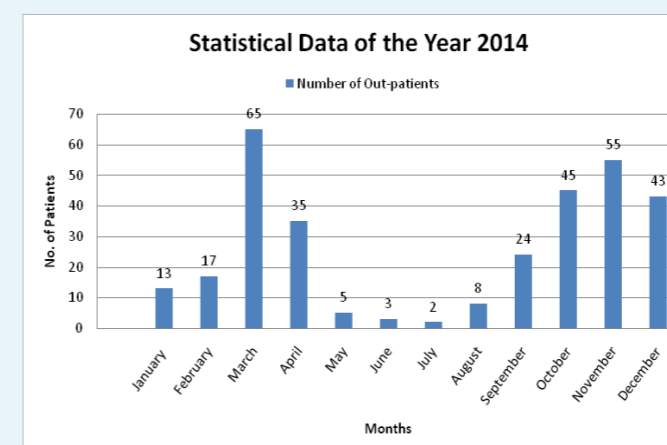
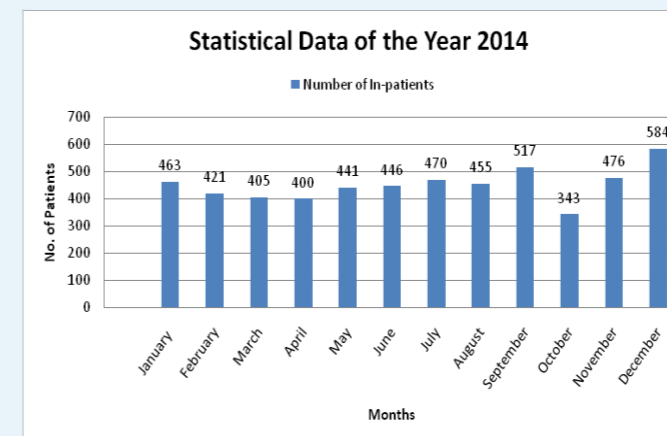
Total no. of patients treated in physiotherapy unit in 2014 are:

In- patient – 5,421

Out-patient –315

Grand total – 5,736

Months and year	Number of In-patients	Number of Out-Patients
JANUARY-2014 (Poush - Magh 2070)	463	13
FEBURARY-2014 (Magh - Falgun 2070)	421	17
MARCH-2014 (Falgun - Chaitra 2070)	405	65
APRIL-2014 (Chaitra - Baisakh2070/71)	400	35
MAY-2014 (Baisakh - Jestha 2071)	441	5
JUNE-2014 (Jestha - Ashad 2071)	446	3
JULY-2014 (Ashad - Shrawn 2071)	470	2
AUGUST-2014 (Shrawn - Bhadra 2071)	455	8
SEPTEMBER-2014 (Bhadra - Ashoj 2071)	517	24
OCTOBER-2014 (Ashoj - Kartik 2071)	343	45
NOVEMBER-2014 (Kartik - Mangsir 2071)	476	55
DECEMBER-2014 (Mangsir - Poush 2071)	584	43



UP COMING PROGRAMS

- Providing safe and reliable physiotherapy service to the hospital.
- Aerobics and fitness classes for obesity and diabetes mellitus population.
- Community exercises programs via camps organized by SGNHC.
- Exercise tolerance test and exercise prescription for patients.

CONCLUSION

Physiotherapy unit is an integral part of Cardiac Rehabilitation and Health Promotion Department at SGNHC. It gives the major contribution in prevention and management of cardiac disease. Hence we would like to thank all the departments and the staffs for their constant support and encouragement. We would also hope to get the more referrals in upcoming days. We would also like to thank our patients and their relatives for their cooperation and believing on us.

ANNUAL MORTALITY: 2014

Dr. Nagma Shrestha, Dr. Surakshya Joshi, Dr. Milan Gautam, Dr. Juna Shrestha

INTRODUCTION

Shahid Gangalal National Heart Centre, established in 1995 AD, is a tertiary care referral hospital which has played a major role in minimizing the burden of heart disease in the country. This 161 bedded hospital has provided a quality care with the state of art medical facilities that includes 18 bedded emergency, 12 bedded coronary care unit and 5 bedded medical intensive care unit.

Distribution of mortality in terms of different level of care

This year total 12964 patients were managed in the emergency department. Five were brought dead and 30 patients succumbed to death while being managed in the emergency department, total mortality in emergency accounting to 0.23 percentage.

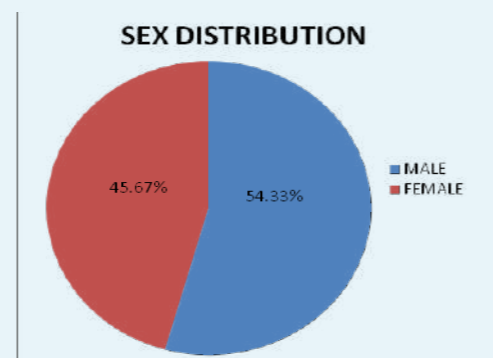
Among 602 critical patients managed in MICU, 79 (13.12%) expired. Mortality rate in CCU was 5.76%(69 out of 1544).

Table1:Distribution of mortality in different level of care

LEVEL OF CARE	Total admission	Number of expired	Mortality rate
MICU	687	108	15.72
CCU	1383	86	6.22
ER	12841	105	0.81
GWA	1676	11	0.66
NMW	1130	7	0.62
S. CABIN	891	3	0.34
D. CABIN	731	1	0.14

SEX DISTRIBUTION

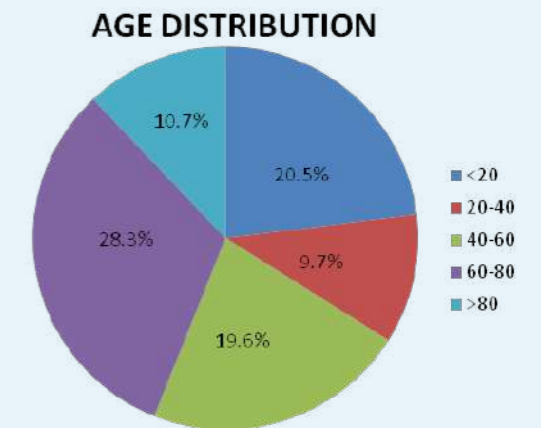
Among 381 mortality, 207(54.33%) were male and 174(45.67%) were female.



AGE DISTRIBUTION MEDICINE

The most common age group was 60 to 80 years followed by less than 20 years. Among less than 20 years age group the bulk was formed by mortality in PSICU.

MORTALITY ACCORDING TO DISEASE IN CCU AND MICU



DISEASE	MORTALITY
Acute Myocardial Infarction-Cardiogenic Shock	34
Acute Myocardial Infarction-Arrhythmia	8
Acute Myocardial Infarction-Heart Failure	22
Cardiac Rupture	3
Constrictive Pericarditis-Heart Failure	1
Post MI VSD	2
RHD-Heart Failure	25
RHD-IE	5
RHD, post MVR stuck valve	4
RHD, post DVR stuck valve	2
Acute Pulmonary Edema	10
Pulmonary Embolism	1
VHD-Heart Failure	9
VHD-IE	2
Congenital Heart Disease- Heart Failure	4
Complete Heart Block-Cardiogenic Shock	4
DCM-Heart Failure	15
Septic Shock	15
COPD-Type II respiratory failure	2

Among 168 mortality in CCU and MICU, acute myocardial infarction with cardiogenic shock was the most common cause accounting for 34 deaths (20.23%) followed by Rheumatic Heart Disease with heart failure(14.88%). Twenty two

(13.09%) patients died due to acute myocardial infarction with heart failure. Fifteen (8.92%) patients died due to DCM with heart failure. Five (2.97%) patients of RHD died due to infective endocarditis.

EARLY AND EFFECTIVE RESUSCITATION TASK FORCE

Dr Ashish Govind Amatya

The department of Anesthesiology in collaboration with the department of Cardiovascular surgery, Cardiology and Nursing formed a task force, Early and Effective Resuscitation Task Force (ERTF), with the objective of training all health care personnel for effective resuscitation. The task force is formed based on our observations that existing resuscitation attempts need improvements. They have to be updated, organized and quality has to be improved. Without these we cannot expect improvement in patient's outcome.

Resuscitating an unstable patient cannot be a one man job. It requires a dedicated team. A team where one man becomes a leader and takes the responsibility of resuscitation process. Others follow the leader. The whole process has to be systematic for good outcome. No doubt these require a lot of trainings and drillings. Trainers also need further training. Providers need regular updates. This is how we learn.

As mentioned above, our task force is multidisciplinary. We have been working together as a team for common purpose. We always encourage our trainee to work in a team. We have a group of trainers. We conduct one day workshop every month. It has been started from Aashad 2071. So far we have trained 24 participants in each session for six months.

The one day course comprises core topic of adult/pediatric basic and advanced cardiovascular life support, management

of airway, acute coronary syndrome and stroke. We have a theory session followed by audiovisual and then hands on training.

This task force has been started in this Shahid Gangalal National Heart Centre with the vision of training all persons who directly involve in patients care. But we have staffs who help us indirectly in patient management. Attendants who transport the patients require some sort of training. Similarly ambulance driver require trainings of basic life support. We also envisioned the need to extend this training for health care personnel working other than this hospital.

So, we are widening our vision and objective of this task force based on the need of our centre and the country. Following are the enlisted objectives and future plans this task force:

1. BLS/ACLS training for all health care person of this centre
2. BLS training for other staffs of this centre
3. BLS/ACL training for health care person of other hospitals
4. Training of trainer
5. Extend the group of trainer
6. Conducting regular reinforcing workshops for the trained persons
7. Publish own BLS/ACLS manual
8. Increase the training hours and quality of to meet international standards

9. To collaborate with international BLS/ACLS training organization like AHA and their regional training centres

10. To validate our training program from different health professional organization of our country (eg getting endorsement of cardiac society of Nepal, Society of Anaesthesiologist of Nepal, Nursing council of Nepal, Medical council of Nepal)

11. Make a group of well trained BLS/ACLS provider so that they can mobilize in national and international disaster management

Our Current Instructor

Department of Anaesthesiology

1. Prof. Jeju Nath Pokharel
2. Dr Apurb Sharma
3. Dr Ashish Govind Amatya
4. Dr. Battu Kumar Shrestha
5. Dr. Surendra Bhusal
6. Dr. Sandip Bhandari
7. Dr. Smriti Mahaju

Department of Cardiovascular Surgery

1. Dr. Bijoy Gopal Rajbanshi
2. Dr. Anil Acharya

Department of Cardiology

1. Dr Dipanker Prajapati
2. Dr Amrit Bogati

Department of Nursing

3. Mrs. Krishna Kumari Subedi
4. Mrs. Nita Dangol
5. Mrs. Prati Shrestha

Administration

1. Bibek
2. Sujan

In conclusion, we have started this task force for good. All the trainers are a bunch of volunteers. We are moving ahead with our limited resources. As we have big objectives, we need more strength to accomplish. Our strength is helping hands of wise people. We need more and more helping hands. We encourage more to join the group. Together we achieve the goal.

INSERVICE EDUCATION IN NURSING

Nursing Education Committee

Nursing is the profession which stand for the saving the life of people.

&

Education is that which change the behavior of the person

INTRODUCTION

It is well known fact that every health Centre's image stands with quality of the care. Among them quality of nursing services comes on the tip of the tongue of health care consumer in hospital entity. In this instance maintaining the body of knowledge, skill and attitude of nursing professionals become very crucial part in delivering quality nursing service. To transfer the knowledge into skill and needful skill into attitude, academic education is not always adequate. So, for enhancement of nursing quality and development of professionalism in the field of nursing, continue nursing education is the stepping stone. Changing technologies, rapidly developing treatment modalities and evolving technology in medicine doubled the need of continue nursing education. With this need of nursing department to improve, maintain & increase the knowledge base of practicing nurses, in high standard of nursing care at SGNHC, a planned nursing in-service education has been started.

Objectives:

Main objective of in-service education is to refresh the existing knowledge and bring

that knowledge and skills into their regular practice and maintain the quality of nursing service.

- To conduct short and long term training program.
- To improve communication skills among nursing personnel at SGNHC.
- To improve and maintain high standard of nursing care to patients at the SGNHC which would increase the satisfaction level of patients & relatives.
- To provide orientation on hospital policies, rules and regulations.
- To update knowledge regarding handling of latest & sophisticated instruments & gadgets
- To develop the check list and manuals of different nursing procedure.
- To form standard nursing protocols in each department.
- To prepare managerial level nursing personnel as a competent clinical instructor.
- To obtain the nurses regarding latest development in nursing practice

PROGRESS

In the history of in-service nursing education of SGNHC nurses were involved on refreshment classes & CME program held in our centre from very beginning but formal regular nurses in-service education was started in the year 2068 with the financial support of hospital administration. Initially the class was taken once a week regularly for nurses by the nurses. To strengthen the nursing education the nursing education committee was formally established on the year 2069; after which class was started twice a week, one for incharge and one for staff nurses. The class conducted for incharge was focused on management and checklist development in different procedure done in our hospital and next class was focused for staff nurses which was need-based orientation to various cardiac disease based management. From the year 2070, education committee is helping the nursing in-charges to take class who are providing clinical supervision for the Bsc nursing students. This year the education committee is making effort on

developing unit based nursing protocol of every unit with combine effort of nursing professionals. In future, the committee is planning to develop nursing procedure manual of SGNHC.

CHALLENGES

- 100% involvement of the nurses in class not achieved despite of repetition class.
- Only one class room for all, not separate facilitated class room and demonstration room.
- Bridging knowledge into practice.
- Application of clinical evaluation tool (checklist).
- Establishment of research based nursing education

CONCLUSION

Education always aimed at change in behavior; until and unless the change took place for betterment of service, the goal of in-service education always remain only the effort not success.

SICU AT A GLANCE

Sunita Khadka

Critical care unit is one of the most complex environments in a health care facility. It has multiple facilities that provide standardised care patient's recovery. The patient is received immediately after cardiac surgery, during this time patient is fully dependent on nursing personnel round the clock for their recovery, however multidisciplinary team members also plays equal roles for the patient recovery, team members follows SICU protocols while caring patient. Following cases are received at SICU.

Cases at ASICU

- Coronary Artery Bypass Graft (CABG)
- Mitral Valve Replacement (MVR)
- Aortic Valve Replacement (AVR)
- Double Valve Replacement (DVR)
- Bentel's Procedure

Cases at PSICU

- Intra-cardiac repair of Tetralogy of Fallot (TOF).
- Atrial Septal Defect (ASD) Closure.
- Ventricular Septal Defect (VSD) Closure.
- Re- routing of Total Anomalous of Pulmonary Venous Connection (TAPVC).
- Re- routing of Partial Anomalous of Pulmonary Venous Connection (PAPVC).
- Patent Ductus Arteriosus (PDA) Ligation.
- Arterial Switch for Trans Position Of Great arteries (TGA)
- Valve Replacement Cases.

1:1 Nurse- patient ratio at critical unit is standard one, although our SICU has 2:1 nurse-patient ratio. As a critical nurse they require specific job related knowledge and skill to work on and handle the critical situation, which consist of assessing patient, planning care, implementing the care plan and evaluation of the action. Assisting physician in performing procedures, observing and record keeping of the patient's hemodynamic parameters, administering intravenous fluids and medication, dispatching investigation for diagnosis and collaborating with fellow members of the multidisciplinary team and intra- department are the responsibilities of nursing staffs at SICU. Working within substandard nursing manpower, Staffs turn-over, long night duty hours are some of the nursing challenges at SICU.

Intensive care nurses are required to possess wide variety of technological knowledge and use them in the critical setting, which includes with hemodynamic and cardiac monitoring, mechanical ventilator therapy, intra-aortic balloon pumps, peritoneal dialysis and ECMO and many other advance life support devices. Training on such skill and knowledge has to be provided through hospital in-service education and manufacturing company. Continuous education and conference for nurses will be helpful to keep updated of this rapidly changing technology.

Nurses, in our centre, are working together to get balanced and organised in their taskfor betterment of patient care.

RADIATION EXPOSURE AND PREGNANT OPERATOR

Shulav Paudel

Careful planning, understanding of the risks, and minimization of radiation dose can address many concerns regarding the pregnant operator. The International Commission on Radiological Protection (ICRP) considers the unborn child a member of the public when considering the occupational exposure of the pregnant worker. Embryos in the earliest stages are most susceptible to radiation. For example, an exposure of 100 mGy (10 rads or 10,000 mrem) < 2 weeks gestation may lead to death of the embryo before clinical pregnancy is even suspected. Therefore, education regarding the pregnant operator should be readily available to every female operator of child-bearing potential. In most cases, pregnant operators may safely perform procedures without the risk of fetal injury or death. In general, malformations only occur above a threshold dose of 100 to 200 mGy (10,000-20,000 mrem) during a pregnancy. Between 8 and 15 weeks after conception, fetal exposure of 1000 mGy may reduce IQ by about 30 points and potentially cause mental retardation. Fetal exposure at a rate of 6% per Gy may also cause an increase in childhood (age 0 to 15) cancer risk. Fortunately, no risk of fetal or childhood effects has been found after preconception irradiation of either parent's gonads.

Once a pregnancy declaration is made, or even before in some cases, the employee can request an additional badge to monitor fetal radiation. This abdominal badge

(or fetal badge) is worn in addition to the standard badge and is secured to the lower abdomen under a lead apron to estimate the dose received by the fetus when protected by lead. The employee has the option to request and wear an abdominal badge regardless of whether a pregnancy declaration has been made. The fetus is most sensitive to radiation effects between 8 and 15 weeks of pregnancy. This period is often before the pregnant worker may announce her pregnancy to coworkers or supervisors, and therefore she may request a fetal badge before actually declaring pregnancy. The purpose of the fetal badge is to assure that the maximum radiation dose to the fetus of 500 mrem over the entire gestational period is not reached. This radiation monitoring is done in addition to the standard collar badge, and the dose should be reported monthly during pregnancy.

Because radiation dose is cumulative, every effort to reduce exposure should be taken in the pregnant operator. This includes minimizing fluoroscopy time, possibly by limiting less experienced operators from using the fluoroscopy pedal or controls. Careful planning to reduce unnecessary imaging or using ultrasound guidance when possible may be used as long as it does not affect patient care or interventional outcomes. The pregnant interventionalist may consider stepping away (ideally >6 feet) away from the table, during imaging runs. **Doubling the distance between the operator and the radiation source**

will reduce the exposure by four. If the pregnant operator cannot step away from the table, movable lead shields should be used and placed between the x-ray beam and the operator. In addition, collimation of the radiographic beam by using metal tubes, cones, or diaphragms interposed in the path of the beam may reduce the peripheral portion that reaches the operator.

The principle of “as low as reasonably achievable” (ALARA) is an important practice in both pregnant and nonpregnant operators. As discussed, reducing time and distance from the radiation source is important. Also critical is the use of protective aprons. The lead equivalence in the apron varies, as will the transmission of radiation through the apron. For example, if the lead equivalence in the apron is 0.75 mm, the transmission through the apron is about 1.1%; if it is 0.5 mm, transmission is about 2.0% to 3.8%; if it is 0.25 mm, transmission is about 10.4%.

The pregnant operator should be aware of the degree of apron protection and may

consider additional coverage. For example, wearing wraparound aprons may allow reduction of exposure from the side or back. “Pregnancy” or “maternity” lead is a commercially available apron that wraps around or has additional 0.5- to 1.0-mm protection in the fetal area. If these options are not available, the pregnant operator may consider wearing an additional protective skirt, particularly if the standard lead equivalent is 0.25 mm.

In the rare circumstance that a woman operator has a significant exposure during pregnancy, the amount of exposure is critical to decision making. Most protection agencies agree that termination of pregnancy at fetal doses of <100 mGy (10,000 mrad) is not justified based on radiation risk. If the fetal dose is between 100 and 500 mGy, the operator and support staff must make decisions based on individual circumstances. If fetal doses are >500 mGy, however, significant fetal damage may have already occurred, and decisions regarding pregnancy termination must be made based on the stage of pregnancy.

EMERGENCY DEPARTMENT AND NURSING SERVICE

Reshma Thapa

Emergency department has transferred into an important service that signifies the quality of health institution can provide. Our institution has strived hard to attend every possible cardiac emergency since the establishment of SGNHC. It involves qualified cardiologist, cardiac surgeons, resident doctors and well trained nursing staffs 24 hours a day.

SERVICE PROVIDED

All the patient arrived in emergency with cardiac discomfort obtain ECG within 5 to 10 minute as recommended by AHA/ACC Guidelines.

Patient with acute MI are directly shifted either to CCU or CATH LAB from ER for thrombolysis within 30 minutes arrival in ER (door to Needle time) OR Primary Angioplasty within 90 mins (door to ballon time).

Lifethreatening arrhythmias, such as complete heart block and other life threatening bradyarrhythmias, are managed promptly with temporary pacemaker insertion without any delay.

Patients with coronary artery disease are admitted and those with unstable angina, STEMI are promptly shifted to intensive unit without any delay.

Non cardiac emergencies are assessed and referred to concerned centers as required.

NURSING SERVICES

The number of cardiac patient is increasing day by day as per demand. The present emergency department has been expanded. There are 9 beds in ER, 9 beds in ER observation ward and 1 bed for injection Penicillin. In an average the number of cardiac patient attending ER is 30- 55 daily.

With the involvement of supporting well trained nursing staff, patient can get prompt service along with quality nursing care 24/7. As patient enters ER nursing staff receives patient gently and get ECG within a min, access lifeline support such as cardiac monitoring and IV line access, collects blood samples, carry out medications and other needful care, orientation of wards. Besides these nursing staffs prepare patients for other cath procedure, OT procedures, STK, TNK, and so on

Emergency ward is well equipped with bedside wall monitors in each bed along with pulse oximetry SPO2; ECG monitors; NIBP monitoring; defibrillators; wall suction facilities; central oxygen supply; crash cart; emergency drug and intubation set. All these set up help us to provide an advance cardiac life support when required immediately.

REFLECTIONS OF AN EXPATRIATE

–Ronald Dery,
Development Expert, USA

My name is Ronald Dery. I am a United States national who has retired in Nepal. I became aware of the existence of Shahid Gangalal National Heart Center (SGNHC) in the early morning hours of 15 November 2014 when following a heart attack I was admitted in the Emergency Ward. Ironically, although I had worked in Nepal on and off for many years and secured health services from other medical providers, this was the first time I had been inside the SGNHC compound.

During my initial stay, angioplasty and in hospital recovery (1 month), I came to know many of the hospital staff Doctors, sisters & attendants. I notice how remarkably dedicated most were to providing the highest quality of patient care which was for me both a lifesaving as well as a life changing experience. So, after my discharge one of my first non-medical contacts was the Counselor Section of the American Embassy. I contacted them to encourage their placing SGHNC on their list of recommended medical facilities to refer other Americans to who experienced heart issues while living, working and/or visiting Nepal because of the high level of medical care and professionalism I had experienced.

Returning to SGNHC after discharge for the normal round of OPD checkups and tests I was again impressed by the outpatient staffs I came into contact with including my assigned doctor Dipanker

Prajapati, Registrar. As a consequence of my continued positive experiences with SGHNC staffs and my desire to help other heart patients especially those without any financial resources, the then main Health Educator Samjhana Shakya and I developed the 'Bridging the Gap' (BTG) SGNHC project (donor funded) that started from this 1 July 2014. This project provides 'free low molecular weight heparin' and high cost injectable antibiotics to very poor SGNHC inpatients. This is a two year project which will continue if future government funds are not allocated for this purpose. During her off time Sangita Kaphle (CCU nurse & project coordinator) monitors this projects implementation.

Recently a second BTG SGNHC project (donor funded) was developed and started (21 October 2014) by Sangita Kaphle, CCU staff nurse and myself under the guidance of Dr. Deewakar Sharma, Head Rehabilitative Services. The objective of this project is to obtain research data (10 month study) to be used to develop new and possibly modify current SGNHC interventions so as to improve the adherence rate of discharged patients to their prescribed treatment plan. During their off time nursing sisters Sunita Pokhrel (Health Educator), Sangita Kaphle (CCU nurse & project coordinator) Puja Kafle (CCU nurse) and Bidushi Dhital (CCU nurse) are implementing this research study.

नर्सहरुको मृदुता

विद्या जोशी कोइराला

नर्सहरुको व्यवहारलाई लिएर पत्र पत्रिकामा बारम्बार पक्ष विपक्षका कुराहरु आइरहेको परिप्रेक्षमा मलाई पनि केहि लेख्न मन लाग्यो ।

नर्सिङ पेशामा अधिकांश महिलाकर्मी हुनाले प्रायः अस्पताल भित्र ढुन्ड हुने बिरामीका पुरुष कुरुवाहरु हुन्छन् स्वास्थ्य सम्बन्धि रेखदेख गर्ने विषयमा रातदिन सेवा गरिरहेका नर्सहरुलाई ज्ञान हुन्छ त्यसकारण अस्पताल भित्र कुरुवाहरुको नियन्त्रण गर्छन तर कुरुवाहरुले नियमको पालना गर्दैनन् जस्ले गर्दा बिरामीलाई आराममा दखल भई रहेको हुन्छ मुटुको बिरामीमा त कहिलेकाहि भिडभाड नियन्त्रण नगर्नाले उनीहरु भुन सिकिस्त हुन पुग्छन् ।

बिरामीलाई भर्ना गर्ने बेलामा बिरामीको नजिकको आफन्त लाई सबै कुरा अवगत गराएपछि पनि बारम्बार बिरामीका सबै प्रकारका नाता र सम्बन्धितहरुले अनावश्यक सोध खोज गर्छन र धेरै प्रकारका कुरुवाहरुले पटक पटक बिरामीलाई भेटघाट गर्दा बिरामीहरुमा संक्रमणको खतरा बढ्छ

संगसंगै नर्सहरुको बिरामीकालागि गर्नु पर्ने दैनिक रेखदेख र उपचारमा बाधा भई रहेको हुन्छ । नराम्रो र रुखो व्यवहारको वर्णन गरेर सुभावा पेटिकामा पत्रहरु पनि आईरहेको हुन्छन तर राम्रो सेवा र राम्रो व्यवहार गरेको वर्णन कहिले पनि पढन पाइदैन । नर्सहरुले गरीव र असक्त बिरामीहरुका लागि खाना,कपडा, औषधी आदिको व्यवस्था गरेका हुन्छन बिरामीहरुको उपचारको चिन्तन र उपायहरु खोजि रहेका हुन्छन । घर गएर पनि सिकिस्त र असक्त बिरामीका लागि प्रार्थना गरेका हुन्छन् । आवश्यक र आकस्मिक परेमा आफ्नो रगत दिएर बिरामीको प्राण बचाउछन् के यो सबैलाई थाहा छ त ? विस्तारै थाहा हुदै जान्छ होला । पक्कै पनि नर्स आफ्नो आमाको गर्भबाट रुखो व्यवहार गर्छु भनेर जन्मदैनन् । कतै उल्लेखित व्यवहारले नर्सहरुको मृदुता हराएको होकि विचार गर्नुपर्ने हुन्छ । अन्यथा नलिएर विनम्रता धैर्यताको र सम्मानको व्यवहार गर्नुस प्रत्योत्तर राम्रै पाउनु हुनेछ ।

रगतको समस्या : कुरुवाको व्यथा

डा. विपेश आचार्य

देशलाई उन्नत र विकशित बनाउन सानै कामबाट प्रक्रिया शुरु गर्नुपर्छ। बोलीमा त ठीकै छ तर व्यवहारमा यी सबै चिज केही पनि नहुने देखिन्छ। यसै सन्दर्भमा सबै नेपालीसम्म केही जानकारी पुगोस् भनेर लेख्ने निधो गरें। हाम्रो समाज अहिले धेरै नातावाद, कृपावाद र स्वार्थी छ। कुनै संघ संस्थामा चिनजान छ तत्काल जे पनि काम हुन्छ, छैन भने निकै नै कष्टकर समस्या व्यहोर्नुपर्ने देखिन्छ। हुन पनि हो आफन्त हो फलानो को मान्छे हो भोली केही काम लिनुपर्ने हुन्छ की भनेर स्वार्थपूर्ण ढंगबाट व्यवहार गर्ने र उसको काम गर्न आफ्नै काम पनि छाडेर लागिपर्ने। तर जसको कोही नाता गोता, चिनजान छैन त्यस्तो व्यक्ति यो शहरमा घण्टजस्तो यता र उता भौतारिइरहेका हुन्छन्। यही रगतको लागि विरामीको आफन्तहरु र कुरुवा भौतारिएको देखेर सानै असह्य हुन्छ तर के गर्नु मैले पनि कसैलाई भनिदिने मात्र गर्न सक्छु। विरामीको कुरुवा भौतारिँदै, आत्तिदै रगतको फारम र आइस बक्स बोकेर आउँछन् र भन्छन् “लौ न हजुर मलाई त आपत पन्यो जसरी भए पनि रगत मिलाइदिनुपन्यो। काठमाडौंको सबै ठाउँ घुमीसकेँ कहीं कतै पाइएन। यदि रगत भएन भने डा. सापले विरामीलाई बचाउन गान्हो हुन्छ भन्नुभएको छ।” बल्ल बल्ल केही गरेर एक दुई पोका रगत उसले पाउँछ र लामो श्वास फेर्छ। साथै केही क्षण रगत लिनको कष्ट जतिसुकै गाह्रो भए पनि आनन्द महसुस गर्छ र खुशी भई आफ्नो विरामी भर्ना भएको अस्पतालमा जान्छ र भन्छ मैले रगत लिएर आएँ हजुर तर उ त्यहाँ पनि मात खान्छ। किनभने जति अहिले अस्पतालहरु मौलाएका छन सबैमा ब्लड बैंकको सुविधा सञ्चालनमा आइसकेका देखिँदैनन। जुन व्यक्तिलाई रगत चढाइन्छ उसको रगत अर्को व्यक्तिको रगतसँग मिल्छ मिल्दैन भनेर क्रसम्याच गर्नुपर्ने हुन्छ। ‘यो टेस्ट त हामी यहाँ गर्दैनौं त्यसैले तपाईंले ल्याएको रगत नेपाल रेडक्रस मै लानुपर्छ’ भनिन्छ। यो सुन्ने बित्तिकै विचाराको सबै आशा फेरी एकचोटी खिन्न हुन्छ र ऊ आत्तिन्छ। ऊ रिसाउँछ र केही बेर उसले आफ्नो होस पनि हराउँछ र सबै स्वास्थ्यकर्मी माथि रिस पोच्छ र जाइलाग्न थाल्छ। कि त कहिले काहीं ठूलै हंगामा समेत सृजना हुन्छ

अनि विस्तारै कुरा मिल्दै पनि जान्छ। केही सरसल्लाह पाएर ऊ त्यो रगत र विरामीको रगत बोकेर रेडक्रस जान्छ। त्यहाँ उसले भन्छ-मैले ल्याएको रगतको क्रसम्याच गरिदिनुपन्यो। त्यहाँ पनि उसलाई केही छिन निराश पारिन्छ। उसले त्यहाँ यस्तो जवाफ पाउँछ की जहाँबाट रगत लिनुभएको हो त्यो टेस्ट त्यहीं गर्नुपर्छ। त्यो टेस्ट गर्न त हामी कहाँबाट तपाईंले रगत लगनुपर्छो। त्यती सुने पश्चात् ऊ अरु केही सुन्न चाहँदैन र ऊ हार खान्छ। के गर्नु देशकै हालत यस्तै छ। संस्थाहरुले के गर्नु। तसर्थ, यी सबै समस्याहरु सुल्झाउनको लागि राज्यले कुन निकायलाई जिम्मा दिएको हो र कुन निकाय अन्तर्गत पर्ने हो, रगत ठिक छ छैन, परिमाण ठिक छ छैन, मिति ठिक छ छैन, तापक्रम मिलेको छ की छैन भनेर कसले हेर्ने हो? यो एउटा जटिल समस्याको रूपमा रहेको छ। त्यसका लागि एउटा निश्चित स्थान र मापदण्डको निर्धारण गर्न सम्बन्धित निकायलाई जिम्मेवारी बोध हुनु जरुरी छ। अहिले सञ्चालनमा रहेको नेपाल रेडक्रस सोसाइटीले आफुले म्याए जतिको राम्रै काम गरेको देखिन्छ तर कामको चाप र रगतको अर्धधिक मागले गर्दा सायद त्यहाँ पनि मानिसले सजिलै सेवा पाउनसक्ने अवस्था देखिँदैन। हुन त हो अहिले सबै निकाय, संघसंस्था भगवान भरोसामा चलेका देखिन्छन्। अर्कोलाई दोष थोपारेर आफु पनिछने हामी नेपालीको रोग नै भईसकेको अवस्था छ।

यो सब घटना मैले अहिले यही लेख मार्फत औल्याउने प्रयास गरें। सायद म एउटा स्वास्थ्यकर्मी नभएको भए आफ्नै पनि अरुजस्तै कुनै दिन यस्तै समस्याबाट पिडित हुन्थेँ होला। त्यसैले केही सुझाव यो लेखमार्फत जनतासम्म पुऱ्याउने र पुगोस भन्ने चाहना राखेको छु। साधारण तरिकाबाट हरेक कुरा बुझ्ने प्रयास गरौं र नबुझेसम्म दोहोऱ्याई/तेहऱ्याई सो धने अधिकारको प्रयोग गरौं। भोलीको दिनमा पनि हामीलाई रगतको आवश्यक पर्ने भएकोले सबै अस्पताल र रगतसँग सम्बन्धित निकायमा प्रयोग हुने Terms हरु र अन्य सबै प्रक्रियाहरु प्रष्टसँग बुझ्ने र बुझाउने प्रयास गरौं।

व्यवस्थापन र संगठनको सम्बन्ध

भूपाल आचार्य

वि.स. २०५२ साल असार २६ गते स्थापना भएको अस्पताल आज १६ वर्षको भयो। २०५२ साल असार २६ गते मन्त्रिपरिषदबाट निर्णय भए पछि ०५२ साल आश्विन १ गते देखि स्वास्थ्य मन्त्रालयको सानो कोठाबाट कार्यालयका दैनिक कामकारवाही त्यो बेला हुन्थ्यो। तत्कालिन बांसवारी छाला तथा जुत्ता कारखानाको करिब ५१ रोपनी जग्गा यस केन्द्रलाई हस्तान्तरण भई सकेको थियो र यस ठाँउको भौतिक पुर्वाधार विकास त्यस बेलाको प्रमुख काम थिए। २०५३ सालमा स्वास्थ्य मन्त्रालय राशाहपथ बाट आफ्नै भवन बासवारीमा यस केन्द्र सऱ्यो र २०५५ साल पौष १५ गते बाट विरामी परीक्षण सेवा इएम संचालनमा आयो र २०५७ सालमा अन्तरंग सेवा संचालनमा आएको यस अस्पतालको सम्पूर्ण सेवा ०५८ साल बाट शुरु भएको थियो। शुरुमा सानो जनशक्ति बाट शुरु गरिएको यस अस्पतालमा हाल करिब ३६५ कर्मचारी हरूको समुहले अस्पताल विकास तथा निर्माण गर्दै मुटुरोग सम्बन्धि उच्च स्तरिय सेवा प्रदान गरेको हुदा राष्ट्रका लागि गौरवको विषय बनेको छ। कुनै पनि संघ संस्था सञ्चालनका लागि उत्कृष्ट नेतृत्व अपरिहार्य हुन्छ यहा डा. अर्बिन भूषण उपाध्याय देखि डा. मन बहादुर के.सी.सम्म आइपुग्दा नेतृत्व वर्गमा रहने व्यक्तिहरुकोलागि जहिले पनि अस्पताल विकास निर्माण तथा प्रशासनिक सुदृढीकरण एक चुनौतिको विषय बनेको देखिन्छ तर कुनै पनि चुनौतिको सामना गर्दै संस्थागत विकास तथा प्रशासनिक सुदृढीकरण गर्न सक्नु कुशल नेतृत्व को अन्तर अस्त्र नै हो भन्ने कुरामा दुइमत छैन।

कुनै पनि संगठनमा व्यवस्थापन र कर्मचारीहरु वीचको अन्तर सम्बन्ध नडमासुको जस्तै हुन आवश्यक छ। संस्थाको जनशक्ति व्यवस्थापन चुनौतिको विषय हो यसलाई सही किसिमले परिचालन Right Person Right post को

मान्यताबाट सहभागितामूलक व्यवस्थापन (Participatory Management) को सिद्धान्तबाट परिचालित हुन सकेमात्र दुरगामी सकारात्मक असर पर्दछ यदि त्यसो हुन सकेन भने व्यवस्थापन र कर्मचारी वीच वैमनश्यता उत्पन्न हुन जान्छ र समग्रमा संस्था तथा व्यक्ति दुवैलाई नकारात्मक असर पर्न सक्ने कुरामा भ्यान केन्द्रित गर्नु अत्यावश्यक छ।

२१ औं सताब्दीमा ठुलो वा सानोको व्यवहार कही कतै बाट हुँदा त्यो स्वीकार्य हुन कठिन हुन्छ। श्रमजीवि कर्मचारीहरुको प्रतिनिधित्वको लागि बिगत लामो समय देखि आवाज उठे र नेपालमा पनि ट्रेड युनियन ऐन २०४९ लागु भए पश्चात् विभिन्न प्रतिष्ठानहरुमा ट्रेड युनियन विकशित हुदै गयो। विभिन्न संघ,संस्था तथा संगठनहरुमा हुने श्रम शोषण, महिला र पुरुषमा हुने श्रमको विभेद जस्ता कुराहरुमा आवाज उठे र ट्रेडयुनियनको स्थापना पश्चात त्यस प्रकारका विभेदहरु कमश न्युनिकरण हुदै गएको देखिन्छ र यो एउटा श्रमिक वर्गकोलागि हितकर नै मान्नु पर्दछ। ट्रेडयुनियनको मुल्य र मान्यता अनुसार यस केन्द्रमा पनि प्रतिष्ठान स्तरको ट्रेड युनियन २०६३ मा स्थापना भए पछि प्रतिष्ठानमा हुने क्रियाकलाप, कर्मचारीहरुको सामुहिक हित तथा अस्पताल विकासमा आफ्नो भूमिका सक्रिय रूपमा निर्वाह गर्दै आएको छ। यसै सन्दर्भमा संगठनले औल्याएका विषयमा व्यवस्थापन संग सामुहिक सौदाबाजी गर्दै निरन्तर अधि बढिरहेको छ। कुनै पनि संगठनमा सम्पूर्ण कर्मचारीहरुको सामुहिक प्रयास बाट नै विकास निर्माण कर्मचारीहरुको हित र संगठनको हित हुने निश्चित छ। यसका लागि सम्पूर्ण श्रमजीवि कर्मचारीहरु तथा व्यवस्थापनमा क्रियाशिल व्यक्तित्व आ-आफ्नो कर्तव्य बोधकासाथ एकताबद्ध भई अधि बढ्नु अपरिहार्य छ।

SIGNIFICANCE OF MOTIVATION IN NURSING

-Nira Shrestha Maharjan

The term motivation is derived from the word “motive” which refers to any idea, emotion, or organic state that prompts man to action.

According to **Mc Farland**, motivation is the ways in which urges, desires, aspiration, striving and needs direct and control or explain the behavior of human being.

Hill argues that motivation is the force that exists within the individual to influence strength and dissociation of behavior.

From the above definition, it is crystal clear that motivation is a vital factor for getting the things done through any individuals efficiently and with full effort. Individuals are much more than merely a production factor in the management plan as they are the members of social systems of many organizations. If managers want subordinates to put their best efforts towards achieving the organizational goals, he/she has to create a motivating climate that is essential in meeting organizational goals.

Florence Nightingale “Founder of Modern Nursing” states nursing as the care which puts the person in best possible condition for nature to restore or preserve health to prevent or to cure disease or injury.

Nursing is such a divine profession in which individuals are cared for; irrespective of their caste, creed, gender, religion, nationality, complexion etc. Nursing Professionals are self motivated personnel whose functions aid a lot for the upliftment and rise of any organization. Nurses are the backbone in the health care system right from the diagnosis, treatment till the full recovery of the patient. Thus they should be highly motivated for provision of better care to the sick.

Now and then, with the advancement in time, the nursing personnel are increasing in quantity related to increasing trends of privatization in the academic health institutions. Quantity is somehow inversely proportional to the quality. Qualitative nursing professionals are in bay presently. Here, qualitative nursing professionals refer to those nursing professionals who are responsible and accountable to their work, keeping in mind, their sincerity and punctuality.

Quality nursing professionals are in minority, though they can be inspired and motivated via various means and ends.

एकथान पुर्जीका लागि.....

- सुधा सिग्देल

फुङ्ग उडेका मलिन अनुहारहरू
रोग र भोकले ग्रसित जीवनका कलेठी बोकेर
आ-आफ्नै शंका उपशंकाका
बिम्ब-प्रतिबिम्ब दर्शाउँदै
ऐया ! र आत्माको आर्तनादले उब्जाएका
सुइय- सुस्केराहरू फुस्काउँदै
शिशिरमा कठ्यांग्रिएको वृक्षसरी
लामबद्ध भई ठडिएका छन्
एकाबिहानै, भालेको डाँको भन्दा पहिल्यै
एक हुल मानिस
एक थान पुर्जीका लागि ।

जीवनका स्वप्नील भविष्यहरूमा
क्षितीज चुम्ने चाहनाहरूमा
खग्रास लागेको छ यतिबेला
आफ्नै गाँसबासको पैठेजोरी खेल्दाखेल्दै
थपिएको छ बज्रपात
शंकास्पद ‘मुटुरोग’
र त
आइपुगेका छन् केन्द्रको दैलोमा
एकाबिहानै, एक हुल मानिस
एक थान पुर्जीका लागि ॥

अनुहारमा अनिश्चयको बादल डम्म छ
पिर व्यथाका डल्लाहरू लटरम्म छ
तरपनि
चुँडनै लागेको सारंगीको तारजस्तो
एकसरे जिन्दगीलाई
मल्हमपट्टि लगाउन
फाटेको भविष्यलाई
टालीटुली सिलाउन
संभावनाको भिनो त्यान्दो समात्दै
आइपुगेका छन्
एकहुल ‘आशाहरू’
एकाबिहानै
एक थान पुर्जीका लागि ॥

नर्स हुँ म

- नीरा श्रेष्ठ महर्जन

Dipendra Pokharel

कोमल ती पुष्प कोपिलालाई
चुँडेर धुजा धुजा पारी
पाषाण रुपी देवतालाई पुज्नु
धर्म हो भने यदि
अन्नलाई माना अनि पाथीमा भरी
छर्नुलाई धर्म मानिन्छ भने
बिन्ती प्रभु !
मलाई तिम्रो
आशिर्वादको लालच नदेखाऊ
अनि धर्म नगरेको पाप स्वरुप
आफ्नो श्रापको डर नदेखाऊ

किनभने म त्यस्तो अकिन्चन अनि
अर्थहीन धर्मको आदीन बन्न चाहन्न
मलाई ती कपोल कल्पित महात्म्य नसुनाऊ
किनकी मलाई ती सोचहीन संस्कारको
आस्तिक बन्नु छैन
मलाई आफ्नो मुल्य मान्यतामा
नास्तिक नै छोडिदेऊ बिन्ती !

त्यसो त
हरेक बेसहाराको सहारामा धर्म भेट्दछु म
हरेक अपांगको लठ्ठी बन्नुमा मुक्ति पाउँदछु म
हरेक बिरामीको पीडा अनि वेदनामा
साथ दिन मन पराउँछु म
मनगढन्ते परम्परामा नअल्झाउ
बिन्ती मलाई !

किनकी प्रत्येक बिरामीको
छाउको मलम बन्नु छ मलाई
रोगले आक्रान्त बिरामीको
मैले उपचार गर्नु छ ।
तिनीहरुको व्यथा अनि पीडाको
मापन गर्नु छ ।
सांसारिक मायामोह अनि
बन्धनले छेबंदैन अब मलाई
किनकी म त कटिबद्ध छु
आफ्नो कर्मको अनि पेशारुपी धर्ममा
किनभने म नर्स हुँ
दुःखीको आँसु अनि हाँसोको संगी म
छोडेर जालान् तिम्रा आफ्नाले कुनै दिन
तर तिम्रीसाग हरदम साथ हुन्छु म
किनकी म नर्स हुँ ।
तिम्रो पीडाको साथी हुँ म
किनकी नर्स हुँ म ॥

OPD PATIENT SATISFACTION AT SGNHC

Patient satisfaction is the essential indicator that indicates the service quality at any level of health care services. Health care has been seen many changes over the year. The objective of health care changed with requirement of the society and the availability of resources and technology. The WHO conference on supporting health for all held in 1990 defined future development in health to be human centered. A lot of stress has been made on investment in health, patient care and patient right to delivery of quality health care leading to patient satisfaction. Patient satisfaction is therefore of high value and it is useful to understand the need of patient.

When I was a student of Master of Healthcare Management I studied and research in my hospital for OPD patient satisfaction. For that propose I collected 383 sample from the patient side. The sample size was calculated by sampling calculator application. Random sampling and judgemental sampling techniques were used to collect the data. Andersen's Phase-2 Model of Health Services Utilization (adapted from Andersen, 1995). Was used as a model for the research design and it is modified and operationalized with the discussion. All the question were asked secretly for patient.

The Rational of the study was related to evaluating the performance, helps to determine the patient satisfaction, useful for

health services & planners to improve the service utilization, improvement of serves and for strengthening the relationship between patient and health care providers. Research question were from overall satisfaction level of the patients, attitude of patients, expectation of patients, relationships of the demographic variables & positive attitude of patient and their expectation.

Question were asked and related to conceptual framework with Independent and Dependent variable. Dependent Variable was related to patient satisfaction which refers to patient's value judgment and contentment with utilizing hospital OPD service. Outpatient Department refers to the hospital unit where a patient is given treatment on consultation with having Convenience, Courtesy, quality of care and Physical environment.

Independent Variables representative to Age, Gender, Marital Status, Education level, Occupation, Doctor Service, Nurse/ Paramedic service, Pharmacy Service, Registration staff service, Accessibility to service, Working hours of OPD, Attitude, Expectation & Number of visit to hospital during last year.

Research Methodology was uses as research design and sources of data. Sample size was taken at SGNHC. The sample size of the study was calculated by

using sample size calculation application from Google. The confident level taken was 95% and Confident interval taken was 5%. The sampling technique for the study was random and judgemental sampling including the patients of different OPD with different background.

I collected data from the patients who have finished all the process of that day, by placing himself at the exit gate, however for the collection of the diverse data and gets real information near the patient's service seeking areas like waiting hall, pharmacy, laboratory, General OPD and some from Paying OPD also.

Data collection method was from direct interview with the respondents by using the structured questionnaire; Key informants interview and records review with ethical consideration. Data analysis and interpretation is necessary for collective method. In this section, data collected were entered in data analysis software, coded, decoded, and analyzed. Simple data analysis tools like percentage, pie chart, frequency, cross tab were used for descriptive analysis where as chi square test was done to establish relationship between dependent and independent variables.

After finishing the process I got lot of finding discussion and conclusion. All together 10 demographic variables were taken for the study and analysis. Which was about department, among age, sex, marital status, education level, address, sources of OPD, expenditure of OPD & modalities of OPD services.

Patient Satisfaction is a person's feeling of pleasure a disappointment resulting from a service perceived performance or outcome in relation to his or her expectations. As this definition makes it clear satisfaction is a function of perceived performance and expectations. If the performance falls short of expectations patient is dissatisfied. If the performance matches the expectations the patient is satisfied. If the performance exceeds the expectations, the patient is

highly satisfied or delighted.

This is the study which was conducted using the 383 sample from patients visiting the OPD of Gangalal National Heart Centre. Sample size is calculated by sampling calculator application. The centre was chosen for being the national referral centre for heart disease and central of excellence for cardiac care in whole country. Andersen's Phase-2 Model of Health Services Utilization (adapted from Andersen, 1995) was used as a model for the research design and it is modified and operationalized with the discussion with supervisor and from the other research models reference. The reliability of the measuring tools was ascertained by the use of Cronbach alpha the alpha value is 0.757.

Demographical variables as age, sex, occupation, types of OPD, payment modalities, location etc were taken as independent variables where as courtesy, convenience, quality of care, out of pocket payment physical facilities, expectation and attitude are taken as an intermediate variables and overall satisfaction is considered as a dependent variables.

The study level that there are 2.1% of respondents has lower expectation where as 97.9% respondents have higher level of satisfaction. 11.83, 12.65 and 71.51% respondents has negative neutral and positive attitude towards the OPD services of the Gangalal national heart centre. The overall 1.8%, 17% and 81.2% respondents were dissatisfied, neutral and satisfied with the OPD services of the SGNHC.

There is no relationship of the satisfaction level and the type of the OPD services, age of the respondents, sex of the respondents as the p value is greater than 0.05 there is strong relationship between satisfaction and marital status or satisfaction is dependent on marital status as the p value is .000. There is relationship between satisfaction and education level of the respondents as p value 0.04. There is weak relationship between satisfaction and types of OPD

service consumed as the p value is .063. There is no relationship between satisfaction and payment modalities as P value is .803. There is no relationship between satisfaction level and the types of the OPD services to which patients are enrolled as the p value is 0.76. There is strong relationship between the satisfaction level and the attitude of the patients as the p values is .000. There is no relationship in expectation and satisfaction as p value is 0.56.

The majority of the respondent gives focus on the improvement of the physical facilities and cost of the services i.e. 24.2

and 19% respectively similarly large number of the respondent replied that everything is Ok i.e. 19%. Similarly single respondents have their suggestion on the improvement of location of facility and X-ray services. According to the researcher impression the hospital should improve the physical working environment, addition of clinicians, and proper guidance of new and uneducated patients, and cost for ultra poor and not covered by government scheme, waiting time for OPD's. Overall condition of the hospital is good.

STAFF LIST

DEPARTMENT OF CARDIOVASCULAR SURGERY

SN	NAME	DESIGNATION
1	Dr. Ramesh Raj Koirala	Consultant Cardiac Surgeon
2	Dr. Jyotindra Sharma	Consultant Cardiac Surgeon & HOD
3	Dr. Sidhartha Pradhan	Consultant Cardiac Surgeon
4	Dr. Bijoy Rajbansi	Consultant Cardiac Surgeon
5	Dr. Rabindra Bhakta Timala	Consultant Cardiac Surgeon
6	Dr. Nabin C Gautam	Cardiac Surgeon
8	Dr. Anil Acharya	Cardiac Surgeon
7	Dr. Yogeshwor Man Singh	Registrar Surgery
9	Dr. Bishow Pokhrel	Registrar Surgery
10	Dr. Nivesh Rajbhandari	Registrar Surgery
11	Dr. Dikshya Joshi	Resident Doctor
12	Dr. Anjeela Kadel	Resident Doctor
13	Dr. Sangam K.C.	Resident Doctor
14	Dr. Marisha Aryal	Resident Doctor
15	Dr. Arun Kumar Sah	Resident Doctor
16	Dr. Subina Gautam	Resident Doctor
17	Dr. Krishna Bhandari	Resident Doctor
18	Dr. Dharmendra Joshi	Resident Doctor
19	Umesh Khan	Resident Doctor
20	Lalita Shakya	Sr. Perfusion Assistant
21	Ram Bharosh Yadav	Perfusion Assistant
22	Laxmi Shrestha	Perfusion Assistant

DEPARTMENT OF CARDIOLOGY

SN	NAME	DESIGNATION
1	Dr. Man Bahadur K.C.	Sr. Consultant Cardiologist & ED
2	Dr. Arun Maskey	Sr. Consultant Cardiologist
3	Dr. Deewakar Sharma	Sr. Consultant Cardiologist
4	Dr. Rabi Malla	Sr. Consultant Cardiologist
5	Dr. Yadav Deo Bhatta	Consultant Cardiologist & HOD
6	Dr. Sujeeb Rajbhandari	Consultant Cardiologist
7	Dr. Rajeeb Rajbhandari	Consultant Cardiologist
8	Dr. Yubaraj Limbu	Consultant Cardiologist
9	Dr. Urmila Shakya	Consultant Pediatric Cardiologist
10	Dr. Subodh Kansakar	Consultant Cardiologist
11	Dr. Roshan Raut	Consultant Cardiologist
12	Dr. Sajan G Baidya	Consultant Cardiologist
13	Dr. Ranjit Sharma	Consultant Cardiologist
14	Dr. Himamshu Nepal	Consultant Cardiologist
15	Dr. Chandra Mani Adhikari	Cardiologist
16	Dr. Binay Kumar Rauniyar	Cardiologist
17	Dr. Murari Dhungana	Registrar Cardiology

SN	NAME	DESIGNATION
18	Dr. Dharma Nath Yadav	Registrar Cardiology
19	Dr. Dipanker Prajapati	Registrar Cardiology
20	Dr. Nagma Shrestha	Registrar Cardiology
21	Dr. Rabindra Pandey	Registrar Cardiology
22	Dr. Satish Kumar Singh	Registrar Cardiology
23	Dr. Manish Shrestha	Registrar Pediatric Cardiology
24	Dr. Amrit Bogati	Registrar
25	Dr. Deepak Limbu	Registrar
26	Dr. Poonam Sharma	Registrar Pediatric Cardiology
27	Dr. Mukunda Sharma	Registrar
28	Dr. Bibek Baniya	Resident Doctor
29	Dr. Roshani Ghimire	Resident Doctor
30	Dr. Sanjay Singh K.C.	Resident Doctor
31	Dr. Rishikesh Rijal	Resident Doctor
32	Dr. Sebina Baniya	Resident Doctor
33	Dr. Surakshya Joshi	Resident Doctor
34	Dr. Prabesh Neupane	Resident Doctor
35	Dr. Ashwani Kumar Gupta	Resident Doctor
36	Dr. Neha Bista	Resident Doctor
37	Dr. Ranjana Bista	Resident Doctor
38	Dr. Juna Shrestha	Resident Doctor
39	Dr. Rabin Sundar Shrestha Taksari	Resident Doctor
40	Dr. Sunita K.C.	Resident Doctor
41	Dr. Milan Gautam	Resident Doctor
42	Dr. Diwan Shrestha	Resident Doctor
43	Dr. Sagun Khanal	Resident Doctor

DEPARTMENT OF ANESTHESIOLOGY

SN	NAME	DESIGNATION
1	Dr. Jejunath Pokharel	Sr. Consultant Anesthesiologist
2	Dr. Apurba Sharma	Registrar Anesthesiology
3	Dr. Ashis Amatya	Registrar Anesthesiology
4	Dr. Battu Kumar Shrestha	Registrar Anesthesiology
5	Dr. Surendra Bhusal	Registrar Anesthesiology
6	Dr. Sandip Bhandari	Registrari Anesthesiology
7	Dr. Smriti Mahaju Bajracharya	Registrari Anesthesiology
8	Dr. Bidhan Gyawali	Resident Doctor

DEPARTMENT OF CARDIAC REHABILITATION & HEALTH PROMOTION

SN	NAME	DESIGNATION
1	Dr. Deewakar Sharma	Sr. Consultant Cardiologist & HOD
2	Dr. Shaili Thapa	Physiotherapist

SN	NAME	DESIGNATION
3	Samjhana Shakya	Public Health Officer
4	Pushpa Neupane	Sr. Staff Nurse
5	Yashoda Luitel	Sr. Physiotherapy Assistant
6	Rajeev Kumar Yadav	Physiotherap Assistant

VISITING SPECIALISTS

SN	NAME	DESIGNATION
1	Dr. Ranjit Baral	Consultant Cardiologist
2	Dr. Dhandu Rani Shakya	Consultant Anaesthesiologist
3	Mr. Mahendra Bhatta	Sr. Perfusionist

DEPARTMENT OF NURSING

SN	NAME	DESIGNATION
1	Nita Dangol	Sr. Nursing Supervisor
2	Krishna Kumari Subedi	Sr. Nursing Supervisor (Matron)
3	Sati Devi Manandhar	Nursing Supervisor
4	Anita Dewan	Nursing Supervisor
5	Prati Badan Dangol	Sister
6	Tulasa KC	Sister
7	Kopila Luitel	Sister
8	Vidhya Koirala	Sister
9	Roji Shakya	Sister
10	Deoki Saru	Sister
11	Manju Timilsina	Sister
12	Kalpana Timilsina	Sister
13	Leela Rana KC	Sr. Staff Nurse II
14	Kunti Khanal	Sr. Staff Nurse
15	Dibyashori Khati	Sr. Staff Nurse
16	Bishnu Pandey	Sr. Staff Nurse
17	Anjana Koirala	Sr. Staff Nurse
18	Sunita Khadka	Sr. Staff Nurse
19	Lalita Maharjan	Sr. Staff Nurse
20	Rajyalaxmi Bhele	Sr. Staff Nurse
21	Lalita Poudel	Sr. Staff Nurse
22	Reshma Thapa	Sr. Staff Nurse
23	Rajani Balami	Staff Nurse
24	Shobhana Shrestha	Staff Nurse
25	Astha Baniya	Staff Nurse
26	Sapana Maharjan	Staff Nurse
27	Ganga Ter	Staff Nurse
28	Mina K.C.	Staff Nurse
29	Mamata Khadka	Staff Nurse
30	Krishna Shwari Gwachha	Staff Nurse
31	Rameswori Duwal	Staff Nurse

SN	NAME	DESIGNATION
32	Suraksha Dhungana	Staff Nurse
33	Binita Tamrakar	Staff Nurse
34	Ushana Shrestha	Staff Nurse
35	Bina Paneru	Staff Nurse
36	Kamala Poudel	Staff Nurse
37	Anupama Sharma	Staff Nurse
38	Puja Satyal	Staff Nurse
39	Basanta Sharma	Staff Nurse
40	Rashmi Karki	Staff Nurse
41	Ambika Shrestha	Staff Nurse
42	Man Kumari Shris Thapa	Staff Nurse
43	Sagun Sharma	Staff Nurse
44	Rukumani Khadka	Staff Nurse
45	Ratna Devekota	Staff Nurse
46	Pabitra Pandey	Staff Nurse
47	Shanta Singh Thakuri	Staff Nurse
48	Pratima Dhakal	Staff Nurse
49	Tulasa Banjara	Staff Nurse
50	Hira Adhikari	Staff Nurse
51	Yogina Maharjan	Staff Nurse
52	Supala Gautam	Staff Nurse
53	Januka Khadka	Staff Nurse
54	Sharmila Thapa	Staff Nurse
55	Siba Laxmi Shrestha	Staff Nurse
56	Puspa Marasini	Staff Nurse
57	Bijaya Aryal	Staff Nurse
58	Jyoti Shrestha	Staff Nurse
59	Shova Shrestha	Staff Nurse
60	Mamta Bista	Staff Nurse
61	Srijana Bhele	Staff Nurse
62	Usha Paudel	Staff Nurse
63	Sangita Kafle	Staff Nurse
64	Rupa Sharma	Staff Nurse
65	Ranjita Guragain	Staff Nurse
66	Chandika Gwachha	Staff Nurse
67	Raj Kumari Shrestha	Staff Nurse
68	Chahana Singh	Staff Nurse
69	Sabita Gyawali	Staff Nurse
70	Srijana Thapa	Staff Nurse
71	Shailee Karanjit	Staff Nurse
72	Puspa Kumari Gurung	Staff Nurse
73	Asmita Karki	Staff Nurse
74	Menuka Silwal	Staff Nurse
75	Jina KC	Staff Nurse

SN	NAME	DESIGNATION
76	Madhuri Thapa	Staff Nurse
77	Kiran Sebedi Dahal	Staff Nurse
78	Manju Pyakurel	Staff Nurse
79	Mamata Ojha	Staff Nurse
80	Chanchala Shrestha	Staff Nurse
81	Lhamu Sherpa	Staff Nurse
82	Punam Shrestha	Staff Nurse
83	Rekha Karki	Staff Nurse
84	Sushila Khanal	Staff Nurse
85	Bal Kumari Chaudhary	Staff Nurse
86	Shreejana Gautam	Staff Nurse
87	Poonam Gurung	Staff Nurse
88	Kusum Thapa	Staff Nurse
89	Sisira Rajthala	Staff Nurse
90	Asha Kumari Jha	Staff Nurse
91	Chitra Pudasani (Adhikari)	Staff Nurse
92	Rajani Shrestha	Staff Nurse
93	Manira Gautam	Staff Nurse
94	Arzoo Neupane	Staff Nurse
95	Tripti Singh	Staff Nurse
96	Renu Tamang	Staff Nurse
97	Ishwori Gautam	Staff Nurse
98	Luniva Yakami	Staff Nurse
99	Shanti Gurung	Staff Nurse
100	Kabita Baniya	Staff Nurse
101	Shama Singh Kunwar	Staff Nurse
102	Shila Shrestha	Staff Nurse
103	Asmita Lamichhane	Staff Nurse
104	Chunam Khadka	Staff Nurse
105	Sumitra Poudel	Staff Nurse
106	Puja Kafle	Staff Nurse
107	Bitika Adhikari	Staff Nurse
108	Sakuntala Karki	Staff Nurse
109	Prajita Shrestha	Staff Nurse
110	Manju Khadka	Staff Nurse
111	Shakuntala Mahat	Staff Nurse
112	Sovita Sapkota	Staff Nurse
113	Bidhya Malla	Staff Nurse
114	Isha Lama	Staff Nurse
115	Prabha Paudel	Staff Nurse
116	Sabina Baral	Staff Nurse
117	Nima Sherpa	Staff Nurse
118	Safala Subedi	Staff Nurse
119	Sujan G.C.	Staff Nurse

SN	NAME	DESIGNATION
120	Samjhana Karki	Staff Nurse
121	Apeksha Ghale	Staff Nurse
122	Sumitra Bhetuwal	Staff Nurse
123	Rekha Kumari Mandal	Staff Nurse
124	Anita Bhandari	Staff Nurse
125	Aarati Gautam	Staff Nurse
126	Ravina Subedi	Staff Nurse
127	Shristi Maharjan	Staff Nurse
128	Sabina Thimi	Staff Nurse
129	Shushma Tamang	Staff Nurse
130	Ramita Pandey Aryal	Staff Nurse
131	Nilima Joshi	Staff Nurse
132	Lina Maharjan	Staff Nurse
133	Bandana Sankhi	Staff Nurse
134	Sangita Baskota	Staff Nurse
135	Ambika Thapa	Staff Nurse
136	Geeta Tiwari	Staff Nurse
137	Prabha Rawal	Staff Nurse
138	Sunita Awal	Staff Nurse
139	Sajina Sharma Ruwali	Staff Nurse
140	Janaki Ayer	Staff Nurse
141	Mukta Shrestha	Staff Nurse
142	Rubina Khadka	Staff Nurse
143	Shovna Shrestha	Staff Nurse
144	Pragya Kuikel	Staff Nurse
145	Pramila Aryal	Staff Nurse
146	Sirjana Adhikari	Staff Nurse
147	Sajana Shrestha	Staff Nurse
148	Sushila Ghimire	Staff Nurse
149	Sarala Malla	Staff Nurse
150	Bhagawoti Chapagain	Staff Nurse
151	Apurwa Sawad	Staff Nurse
152	Sanju Shah	Staff Nurse
153	Rashmi Basnet	Staff Nurse
154	Anisha Ghimire	Staff Nurse
155	Kripa Sankhi	Staff Nurse
156	Sabita Khanal	Staff Nurse
157	Kamana Paudel	Staff Nurse
158	Nira Kumari Shahi	Staff Nurse
159	Ritu Karki	Staff Nurse
160	Kripa Poudel	Staff Nurse
161	Nira Shrestha	Staff Nurse
162	Neeta Guragain	Staff Nurse
163	Nirjala Khanal	Staff Nurse

SN	NAME	DESIGNATION
164	Sanjita Dhakal	Staff Nurse
165	Namrata Maharjan	Staff Nurse
166	Aagya Pokharel	Staff Nurse
167	Bandana Bogati	Staff Nurse
168	Anuja Adhikari	Staff Nurse
169	Luna Maharjan	Staff Nurse
170	Sunaina Shakya	Staff Nurse
171	Barsha Oli	Staff Nurse
172	Bidushi Dhital	Staff Nurse
173	Sharmila Neupane	Staff Nurse
174	Namrata Rawal	Staff Nurse
175	Shushma Upadhayay	Staff Nurse
176	Laxmi Adhikari	Staff Nurse
177	Prabha K.C.	Staff Nurse
178	Luna Nepal	Staff Nurse
179	Sunita Pokhrel	Staff Nurse
180	Sarita Maharjan	Staff Nurse
181	Rashmila Manandhar	Staff Nurse
182	Sharmila Dhukuchhu	Staff Nurse
183	Prativa Koirala	Staff Nurse
184	Barsha Shrestha	Staff Nurse
185	Kalpana Thapa	Staff Nurse
186	Madhushree Khanal	Staff Nurse
187	Shilpa Shrestha	Staff Nurse
188	Deepa Devkota	Staff Nurse
189	Dikchhya Karki	Staff Nurse
190	Season Bista	Staff Nurse
191	Rojina Rayamajhi	Staff Nurse
192	Bhelantina Thapa	Staff Nurse
193	Mandira Khadka	Staff Nurse
194	Amita Sigh	Staff Nurse
195	Hemu Pun	Staff Nurse

ADMINISTRATION

SN	NAME	DESIGNATION
1	Dr. Man Bahadur K C	Executive Director
2	Dipendra Khadka	Dy. Chief of Administrative
3	Dipendra Pokharel	Sr. Administrative Officer
4	Ram Prasad Acharya	Administrative Officer
5	Bimala Aryal	Administrative Officer
6	Bhupal Acharya	Administrative Officer
7	Bimala Sapkota	Administrative Assistant
8	Ram Babu Raut	Medical Record Assistant
9	Chunam Lama	Administrative Assistant

SN	NAME	DESIGNATION
10	Mahendra Lamsal	Administrative Assistant
11	Yuba Raj Timilsina	Administrative Assistant
12	Santosh Dhakal	Administrative Sub- Assistant
13	Bhagawati Gaire	Administrative Sub- Assistant
14	Pratima Malla Thakuri	Administrative Sub- Assistant
15	Bikash Khaniya	Administrative Sub- Assistant
16	Mandira Khadka	Administrative Sub- Assistant
17	Kabita Koirala Khatiwada	Administrative Sub- Assistant
18	Krishna Bahadur Budhathoki	Driver II
19	Sanu Lama	Driver II
20	Bharat Bahadur Khadka	Driver
21	Pitambar Bhujel	Driver
22	Bhej Bahadur Moktan	Driver
23	Bhai Narayan Maharjan	Driver
24	Rup Bdr Thapa	Driver
25	Gyan Kaji Maharjan	Driver
26	Sadhuram Pandit	Driver
27	Yagya Bahadur Khulal	Driver
29	Sharada Khanal	Office Helper II
30	Madhav Thapa	Office Helper II
31	Bharat Bahadur Basnet	Office Helper II
32	Shanti KC	Office Helper II
33	Gauri Devi Sharma	Office Helper II
34	Kalpana Bhattarai	Office Helper
35	Kamala Gautam	Office Helper
36	Sushila Bista	Office Helper
37	Biju Kuwar Chhetri	Office Helper

RADIOLOGY

SN	NAME	DESIGNATION
1	Dr. Pragati Shrestha	Resident Doctor
2	Indesh Thakur	Sr. Radiography Technologist
3	Baidh Nath Yadav	Radiography Technologist
4	Shulav Paudel	Radiography Technologist
5	Shyam Thakur	Sr. Radiographer
6	Saroj Chhetry	Radiographer
7	Seema Gyawali	Radiographer
8	Shyam Kumar Adhikari	Radiographer
9	Bijaya Shrestha	Radiographer
10	Baburam Kharel	Radiographer
11	Laxminarayan Singh	Radiographer
12	Sebika Baniya Pandit	Radiographer
13	Pramod Khatri	Radiographer
14	Ramesh Thapa	Dark Room Assistant II

FINANCE

SN	NAME	DESIGNATION
1	Bimal Kumar Upreti	Chief Financial Administration
2	Manoj Kumar Bista	Sr. Finance Officer
3	Naresh Chipalu	Finance Officer
4	Sabin Manandhar	Account Assistant
5	Niru Dahal	Account Assistant
6	Bibek Thapa	Account Sub- Assistant
7	Sanjay Maharjan	Account Sub- Assistant
8	Krishna Bahadur Kumal	Account Sub- Assistant

PATHOLOGY

SN	NAME	DESIGNATION
1	Dr. Bipesh Acharya	Resident Doctor
2	Binod Kumar Yadav	Medical Lab Technologist
3	Bindeshor Yadav	Medical Lab Technologist
4	Arya Tara Shilpakar	Sr. Lab Technician
5	Renu Shakya	Sr. Lab Technician
6	Narendra Shrestha	Lab Technician
7	Sarala Koirala	Lab Technician
8	Rajnarayan Mishra	Lab Technician
9	Sushila Shrestha	Lab Technician
10	Prasanta Koirala	Lab Technician
11	Sunita Giri	Lab Technician
12	Bikash Bhusal	Lab Technician
13	Shanti Sharma	Lab Technician
14	Nawal Kishor Yadav	Lab Technician
15	Bijaya Kumar Thakur	Lab Technician
16	Santosh Acharya	Lab Technician
17	Suresh Kumar Gupta	Lab Technician
18	Pradeep Khanal	Lab Technician
19	Pranila Chitrakar	Lab Technician
20	Prem Hari Bhasima	Lab Technician
21	Birendra Chaudhary	Lab Technician

PHARMACY

SN	NAME	DESIGNATION
1	Madhu Giri	Sr. Pharmacist
2	Atmaram Timalisina	Pharmacy Assistant
3	Anu Acharya	Pharmacy Assistant
4	Prem Raj K.C.	Pharmacy Assistant
5	Kamal Bahadur Rana	Pharmacy Assistant
6	Nabina Thapa	Pharmacy Assistant

SN	NAME	DESIGNATION
7	Upama Parajuli	Pharmacy Assistant
8	Jaykishor Shah	Health Assistant
9	Indrajit Yadav	Health Assistant
10	Manoj Kumar Yadav	Health Assistant
11	Niru Ratyal	Health Assistant
12	Devendra Yadav	Health Assistant

MAINTENANCE

SN	NAME	DESIGNATION
1	Pradip Kumar Yadav	Sr. Overseer
2	Bhagawan Karki	Overseer
3	Nawaraj Roka	Sub- Overseer
4	Bhogendra Narayan Shah	Sub- Overseer
5	Shamsher Bahadur Basnet	Plumber
6	Kedar Raj Khadka	Plumber
7	Bishwa Ram Adhikari	Plumber
8	Dinesh Maharjan	Plumber