IMPLEMENTATION OF CLINICAL INDICATORS IN ALL FOUR MAJOR SPECIALTIES

Ministry of Health, Nutrition & Indigenous Medicine

2017

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INTRODUCTION

Sri Lanka is a country known to the world for providing cost effective healthcare free of direct cost to the patient. The maternal mortality ratio, neonatal mortality rate, life expectancy at birth and many more health indices are comparable with those of the developed world. Although these Sri Lankan indicators are the best in the region, much has to be done to ensure quality and safety in the delivery of healthcare, especially in hospitals. Many attempts were made in the past to achieve this, but had little success due to a variety of reasons.

The evolution of a National Quality Assurance Programme in the Sri Lankan Health Services dates back to 1989 and since then, it showed a steady growth. Anyhow, a formal programme was not initiated. Therefore, it was recommended to establish an apex body to facilitate the quality improvement programme throughout the country.

Hence Directorate Healthcare Quality and Safety was established in September 2012. Currently, this directorate works under the concept of 'Centrally Driven, Locally Led, Clinically Oriented, and Patient Centered Continuous Quality Improvement programme.

Sri Lanka is in the developing phase of Healthcare Quality and Patient Safety. Ministry of health, Nutrition and Indigenous Medicine has put a great effort on this. Directorate of Healthcare Quality and Safety has prepared the Clinical Indicators for all four major specialties namely Medicine, Surgery, Paediatrics and Obstetrics & Gynaecology in collaboration with the relevant colleges. Members from each colleges participated in several consultative meetings to prepare this indicators.

Clinical indicators are a monitoring tool of the healthcare quality. Several health indicators exist in the healthcare system worldwide and we have identified few important key clinical indicators which will suit to our country and which will be easy to monitor.

Indicators for performance and outcome measurement allow the quality of care and services to be measured. This assessment can be done by creating quality indicators that describe the performance that should occur for a particular type of patient or the related health outcomes, and then evaluating whether patients' care is consistent with the indicators based on evidence based standards of care (international journal for Quality in healthcare).

Indicators may vary in their validity and reliability. Validity is the degree to which the indicator measures what it is intended to measure. Reliability is important when using an indicator to make comparisons among groups or within groups over time.

Finally each college has selected five clinical indicators on their specialties which will be implemented in all healthcare institutions. Data will be presented at the quarterly performance review meetings which will be held at the Directorate of Healthcare Quality & Safety.

These Clinical Indicators will be used to monitor the quality of care of Healthcare Institutions in Sri Lanka.

2. Circular in English

සෞඛ්‍ය පෝෂණ සහ දේශීය වෛද්‍ය අමාත්‍යාංශය
சுகாதார, போசணை மற்றும் சுதேசவைத்தியஅமைச்சு
Ministry of Health, Nutrition & Indigenous Medicine

General Circular No: 01 - 07 / 2017

All Provincial Directors of Health Services

All Regional Directors of Health Services

All Hospital Directors / Medical Superintendents

Implementation of Clinical Indicators in four Major Specialties

Good quality of care and patient safety are being an integral part of Healthcare Services in our country. To achieve this, Directorate of Healthcare Quality and Safety – Ministry of Health, Nutrition and Indigenous medicine has planned to introduce Clinical Indicators related to all four major specialties namely General Medicine, General Surgery, Pediatrics and Obstetrics & Gynecology.

The finalized document is attached herewith as follows,

- **Clinical Indicators in General Medicine (annexure I)**

- **Clinical Indicators in General Surgery (annexure II)**

- **Clinical Indicators in Pediatrics (annexure III)**

- **Clinical Indicators in Obstetrics & Gynecology (annexure IV)**

All heads of Institutions are requested to ensure the implementation of this circular in their institution and have to perform their results in Quarterly performance review meeting.

Dr.J.M.W.Jayasundara Bandara

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Ministry of Health, Nutrition & Indigenous Medicine.

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Attached: Clinical Indicators of four major specialties

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3. Circular in Sinhala

සෞඛ්‍ය පෝෂණ සහ දේශීය වෛද්‍ය අමාත්‍යාංශය
சுகாதார, போசணை மற்றும் சுதேசவைத்தியஅமைச்சு
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සියලුම පළාත් සෞඛ්‍ය සේවා අධ්‍යක්ෂවරුන්,
සියලුම ප්‍රාදේශීය සෞඛ්‍ය සේවා අධ්‍යක්ෂවරුන්,
සියලුම රෝහල් අධ්‍යක්ෂවරුන්/වෛද්‍ය අධිකාරිවරුන්

<u>ප්‍රධාන විශේෂඥ ක්ෂේත්‍රයන්හි සායනික දර්ශකයන් ක්‍රියාත්මක කිරීම</u>

ගුණාත්මක උපස්ථාන සේවාවක් සැළසීම හා රෝගීන්ගේ සුරක්ෂිතතාවය අප රටෙහි සෞඛ්‍ය සේවාවන් හා බැඳුනු අත්‍යවශ්‍ය අංගයක් බවට පත්වෙමින් පවතී. මෙම අරමුණ සාක්ෂාත් කරගනු පිණිස, සාමාන්‍ය වෛද්‍යකර්මය, සාමාන්‍ය ශල්‍යවෛකිත්සාව, බාලක වෛද්‍ය විද්‍යාව සහ ප්‍රසව හා තාරීවෛද්‍ය යන ප්‍රධාන විශේෂඥ ක්ෂේත්‍රයන් හතර සඳහා සායනික දර්ශකයන් හඳුන්වාදීමට සෞඛ්‍ය, පෝෂණ හා දේශීය වෛද්‍ය අමාත්‍යාංශයේ, සෞඛ්‍ය සේවාවන්හි ගුණාත්මකභාවය හා සුරක්ෂිතතාව පිළිබඳ අධ්‍යක්ෂ මණ්ඩලය තීරණය කර ඇත.

ඒ අනුව සකස් කරන ලද පහත සඳහන් අවසන් ලේඛන මේ සමග ඉදිරිපත් කරමි :

- සාමාන්‍ය වෛද්‍යකර්ම ක්ෂේත්‍රයට අදාල සායනික දර්ශක (ඇමුණුම I)
- සාමාන්‍ය ශල්‍යවෛකිත්සා ක්ෂේත්‍රයට අදාල සායනික දර්ශක(ඇමුණුම II)
- බාලක වෛද්‍ය විද්‍යා ක්ෂේත්‍රයට අදාල සායනික දර්ශක(ඇමුණුම III)
- ප්‍රසව හා තාරීවෛද ක්ෂේත්‍රයට අදාල සායනික දර්ශක(ඇමුණුම IV)

තම ආයතනයන්හි මෙම චක්‍රලේඛය ක්‍රියාත්මක කිරීමට කටයුතු කරන ලෙස සියල්ම ආයතන ප්‍රධානීන් වෙතින් ඉල්ලා සිටින අතර කාර්තුමය කාර්ය සාධන රැස්වීම්වලදී ඒ පිළිබඳ කාර්ය සාධනය ඉදිරිපත් කළ යුතු වේ.

වෛද්‍ය ජේ.එම්.ඩබ්ලිව්. ජයසුන්දර බණ්ඩාර,
සෞඛ්‍ය සේවා අධ්‍යක්ෂ ජනරාල්,
සෞඛ්‍ය, පෝෂණ හා දේශීය වෛද්‍ය අමාත්‍යාංශය.

වෛද්‍ය ජේ. එම්. ඩබ්. ජයසුන්දර බණ්ඩාර
සෞඛ්‍ය සේවා අධ්‍යක්ෂ ජනරාල් (වැ.බ.)
සෞඛ්‍ය, පෝෂණ හා දේශීය වෛද්‍ය අමාත්‍යාංශය,
385, "සුවසිරිපාය",
රූප බද්දේගම විමලවංශ හිමි මාවත,
කොළඹ 10.

ඇමුණුම : ප්‍රධාන විශේෂඥ ක්ෂේත්‍රයන්හි සායනික දර්ශකයන්

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4. Circular in Tamil

சுகாதார, போசணை மற்றும் சுதேசவைத்தியஅமைச்சு
Ministry of Health, Nutrition & Indigenous Medicine

சுற்று நிரூப இல. 01—07/2017

சகல மாகாண சுகாதார சேவைகள் பணிப்பாளர்கள்
சகல பிராந்திய சுகாதார சேவைகள் பணிப்பாளர்கள்
சகல வைத்தியசாலைப் பணிப்பாளர்கள்/மருத்துவ அதிகாரிகள்

நான்கு விசேட தகைமையுள்ள சிகிச்சை முறைகளுக்குமான குறிகாட்டிகளை அமூல்படுத்துதல்

நமது நாட்டில் சிறந்த தரத்திலான நோயாளர் பராமரிப்பும், பாதுகாப்பும் சுகாதார பாதுகாப்புச் சேவையில் முக்கிய இடம் பெறுகின்றன. இவற்றை அடைவதற்காக சுகாதார, போசணை மற்றும் சுதேச வைத்திய அமைச்சு விசேட தகைமையுள்ள சிகிச்சை முறைகளுக்கான குறிகாட்டிகளை அமூல்படுத்த திட்டமிட்டுள்ளது. அவை பின்வரும் நான்கு பெரும் பிரிவுகளிலடங்குகின்றன. பொது மருத்துவம், பொதுச் சத்திர சிகிச்சை, குழந்தைகள் மருத்துவம் மற்றும் மகப்பேற்று மருத்துவம் என்பன அவையாகும்.

தீர்மானிக்கப்பட்ட ஆவணங்கள் இத்துடன் இணைக்கப்பட்டுள்ளன.

- பொது மருத்துவ சிகிச்சை முறைக்கான குறிகாட்டிகள் (இணைப்பு 1)
- பொதுச் சத்திர சிகிச்சை முறைக்கான குறிகாட்டிகள் (இணைப்பு 2)
- குழந்தைகள் சிகிச்சை முறைக்கான குறிகாட்டிகள் (இணைப்பு 3)
- மகப்பேற்று சிகிச்சை முறைக்கான குறிகாட்டிகள் (இணைப்பு 4)

சகல நிறுவனங்களின் தலைவர்களும் இச்சுற்று நிரூபத்தை தங்கள் நிறுவனங்களில் செயற்படுத்துவதுடன் காலாண்டுக்கான மீளாய்வுக் கூட்டங்களில் பெறுபேறுகளை முன்வைக்க வேண்டும்.

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வைத்தியர். ஜெ. எம். டப்ளியு. ஜயசுந்தர பண்டார
சுகாதார சேவைகள் பணிப்பாளர் நாயகம்
சுகாதார, போசணை மற்றும் சுதேச வைத்திய அமைச்சு

இத்துடன் நான்கு பிராதான சிகிச்சைமுறைகளுக்குமான குறிகாட்டிகள் இணைக்கப்பட்டுள்ளன.

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5. Clinical indicators of Medicine

1.1 Percentage of patients given a fibrinolytic in <30 minutes of arrival in ST Elevation Myocardial Infarction(STEMI) or undergoing primary Percutaneous Coronary Intervention(PCI) in <90 minutes of arrival to hospital.

Indicator definition	The Door to needle time (DNT) is defined as the time between the moments of entrance of the patient with a possible Acute Coronary Syndrome (ACS) to the emergency room and diagnosed as having a ST Elevation Myocardial Infarction (STEMI) and receiving a fibrinolytic therapy. The Door to Balloon time (DBT) is defined as the time between the moments of entrance of the patient with a STEMI to the emergency room and undergoing primary Percutaneous Coronary Intervention (PCI).
Numerator	1. Number of patients with DNT (when a fibrinolytic is given) in STEMI should be less than 30 minutes of admission. 2. Number of patients with DBT (when a PCI is done) in STEMI less than 90 minutes of admission. *Numerator Source: CCU, PCU, ETU, medical wards*
Denominator	1. Number of patients admitted with STEMI who underwent fibrinolytic treatment. 2. Number of patients admitted with STEMI who underwent PCI. *Denominator Source: CCU*
Standard	International standard for DNT in < 30 min is 90 % and DBT in < 90 min is 90% Current achievement in Sri Lanka for DNT in < 30 minutes is **37 %,** < 60 minutes is 69%**,** < 90 minutes is 88%**,** and median DNT is 88minutes, according to the Acute Coronary Syndrome Sri Lanka Audit Project (ACCSLAP) completed in 2015. The DBT in < 90 min is 68% in ACCSLAP and median DBT is 92 min. **Standard proposed** : • 70 % for DNT in< 30 minutes and median DNT to be 60 minutes • 90% for DBT in < 90 minutes and median DBT to be 60 minutes

Rationale	More than 90 % of patients with STEMI should be given fibrinolytics within 30 minutes or should be subjected to Primary PCI within 90 minutes of admission Primary PCI has become the treatment of choice for patients presenting with ST-segment elevation myocardial infarction (STEMI). The goal of revascularization is to restore the blood flow through an occluded coronary artery. Advantages of primary PCI are the reduction of mortality, reduction of morbidity by recurrent ischemic events, re-infarction, better long term prognosis and avoiding the fibrinolytic related complications. However currently the percentage of patients who can be offered PCI is very low in Sri Lanka due to unavailability of coronary interventions for most of the patients admitted with ACS. In ACCSLAP only 6% underwent PCI in Sri Lanka while in UK currently 98% undergo PCI and achieve DBT < 90 in 92% while in Australia and NZ 60% undergo PCI with DBT< 90 min in 61%. With the resources available in Sri Lanka we should try to increase the patients with DNT in < 30 minutes getting fibrinolytics to > 70% and also increase the percentage getting PCI in hospitals where facilities are available.
Special data collection methods required, if any	Collected in monthly basis and presented at the performance review meeting held at the institutional level quarterly and by D/HQS of line ministry and provincial ministry biannually. It will be a survey oriented data collection.

1.2 Percentage of patients with diabetes who are attending to Medical clinics, having FBS measured at least once in two months or HbA$_{1C}$ measured at least once in 6 months and controlled to target FBS < 126mg/dl and HbA$_{1C}$ < 7.

Indicator definition	Early diagnosis of diabetes and regular monitoring of the Fasting Blood Sugar **(FBS)** to ensure tight control are crucially important in reduction of the complications. FBS is suggested and the most commonly available test and HbA$_{1C}$ as the best test and the targets for control for FBS < 126 mg/dl and HbA$_{1C}$ < 7%. "Screening is the process of identifying those individuals who are at sufficiently high risk of a specific disorder to warrant further investigation or direct action." The term **diagnosis** refers to confirmation of diabetes in people who have symptoms, or who have had a positive screening test.
Numerator	Number of patients with diabetes who are attending to Medical/ Diabetic clinic; measuring FBS at least once in 2 months/ HbA$_{1C}$ once in six months and controlled to target. *Numerator Source: Medical /Diabetes Clinic of Hospital*
Denominator	Total Number of patients with diabetes who are attending to Medical /Diabetic clinic *Denominator Source: Medical /Diabetes Clinics of Hospital*
Standard	To be determined (ideally based on current data from Sri Lanka)
Rationale	Diabetic control is aimed to target by measuring FBS at least once in two months/ HbA$_{1C}$ once in six months in order to control diabetics. More than 60% of patients meet the target blood glucose control assessed by FBS.
Special data collection methods required, if any	Collected every month and presented at the performance review meeting at institutional level held at the D / HQS quarterly and by line ministry and provincial ministry institutions biannually. It will be a survey oriented data collection.

1.3 Percentage of patients with BP controlled to target < 140/90mmHg in the patients with cardiovascular risks.

Indicator definition	Blood pressure is measured in all patients with cardiovascular risks (**hypertension, diabetes, ischemic heart disease, and stroke**) at least once in three months using a calibrated BP apparatus and blood pressure controlled to target **< 140/90mmHg**.
Numerator	Number of patients with cardiovascular risks (hypertension, diabetes, ischemic heart disease, stroke) who has controlled to target of <140/90mmHg. *Numerator Source: Medical Clinic in Hospital / NCD Clinics*
Denominator	Total Number of patients with cardiovascular risks (hypertension, diabetes, ischemic heart disease, stroke) *Denominator Source: Medical Clinic in Hospital / NCD Clinics*
Standard	To be determined (ideally based on current data from Sri Lanka)
Rationale	More than 90 % of patients with CVD risks should ideally meet the target of the blood pressure control to <140/90. Hypertension accounts for an estimated 54 % of all strokes and 47 % of all ischemic heart disease events globally. Hypertension increases the risk for a variety of cardiovascular diseases including stroke, coronary artery disease, heart failure, atrial fibrillation and peripheral vascular disease. Coronary disease in men and stroke in women are the principal first cardiovascular events noted after onset of hypertension. The risk for both coronary disease and stroke increases progressively with incremental increases in blood pressure above 115/75 mmHg. The increase in cardiovascular risk has primarily been described in terms of elevated systolic pressure in those over age 60 years and elevation in diastolic pressure in younger individuals. Pulse pressure, which is the difference between the systolic and diastolic blood pressures, determined primarily by large artery stiffness, is also a strong predictor of risk.
Special data collection methods required, if any	Collected every month and presented at the performance review meeting held at the D / HQS by line ministry and provincial ministry institutions. It will be a survey oriented data collection.

1.4 Percentage of errors in administration of prescribed medication to the right patient at any stage of medication process (i.e., prescribing, transcribing, dispensing, administration and monitoring)

Indicator definition	Medication error is any preventable event that may cause or lead to inappropriate medication use or patient harm while the medication is in the control of the health care professional. Medication error is an unintended failure in the drug treatment process that leads to, or has the potential to lead to, harm to the patient. Mistakes in the prescribing, dispensing, storing, preparation and administration of a medicine are the most common preventable cause of undesired adverse events in medication practice and present a major public health burden.
Numerator	Number of medication incidents/errors in any of the above categories reported using the medication incident reporting form during a defined period or in the absence of reporting, number of medication errors identified in an audit of medication errors. *Numerator Source: Curative care ward/wards and out patients Departments*
Denominator	Total number of inward/out patients treated in the hospital during the period or in the absence of reporting system, total number of medication orders administered observed during an audit. *Denominator Source: all wards in the hospitals and Out Patient Departments*
Standard	To be determined (ideally based on current data from Sri Lanka)
Rationale	The medication errors and the near misses identified are less than 5 % of the total prescriptions of the unit. Worldwide, adverse events occur in around 10% of hospital patients and 5-20% of those adverse events result in death. These adverse events occur with failures following unsafe clinical practices, unsafe use of injections, medications and medical devices.
Special data collection methods required, if any	Survey Collected every month and presented at the performance review meeting held at the D / HQS by line ministry and provincial ministry institutions. It will be a survey oriented data collection.

1.5 Percentage of patients with a physician diagnosis of asthma who receive out-patient/ETU/PCU nebulisations.

Indicator definition	Considerable number of patients will be receiving treatment from the OPD/ETU/PCU with nebulisations around the clock. This will indicate new cases as well as poorly controlled cases.
Numerator	Number of patients with previously diagnosed asthma who receive outpatient (OPD/PCU/ETU) nebulisations *Numerator Source: register from OPD/ETU/PCU/ nebulisation room.*
Denominator	Number of all Patients with asthma getting treatment from OPD,PCU,ETU
Standard	To be determined (ideally based on current data from Sri Lanka)
Rationale	Acute exacerbations of asthma are common, account for a considerable number of physician encounters, and are considered as a leading cause for overcrowding of OPD, PCU and ETU. In acute exacerbations, the airways become narrowed due to mucosal oedema, hyper secretion and bronchospasm. Therefore, during an exacerbation, inhaled β2-agonists are often administered to relieve bronchospasm by wet nebulisation. The percentage of patients getting unscheduled nebulisations will be used as an indicator.
Special data collection methods required, if any	Collected every month and presented at the performance review meeting held at the D / HQS by line ministry and provincial ministry institutions

6. Clinical Indicators of Surgery

1.1 Rate of Postponement of Elective Surgery	
Indicator definition	A postponement of an elective surgery is defined as any operation that was scheduled on the theatre list for that day and not carried out.
Numerator	Number of elective surgeries those were postponed in a month as per theatre list by the unit. *Numerator Source : OT of a hospital*
Denominator	Total number of elective surgeries scheduled for that month by that unit. *Denominator Source : OT of a hospital*
Standard	To be determined after one year of implementation
Rationale	Unanticipated cancellation of scheduled operations is of major concern to the patient and the health care system even though the theatre time may not be wasted. Identifying the rate of postponement will help to determine the reasons for the same and taking corrective measures.
Special data collection methods required, if any	Collected quarterly and presented at the performance review meeting held at the D / HQS by line ministry and provincial ministry institutions Need to produce a summary of the number of surgeries postponed with the reasons extracted from OT register. It should be unit specified.
Comments	Main reasons for postponement should be included. Ex: lack of theatre time and patient being unfit.

	1.2 Waiting time duration in indexed operations. Divided into cancer and non-cancer
Indicator definition	The waiting time for a surgical procedure begins when the patient presents to a surgeon either as outpatients or inpatients and ends when the surgery begins. This is computed for Cancer and Non-cancer patients separately

Numerator	Cumulative duration (Days) from the date of presentation to the surgeon to the commencement of therapy in a given month
	    01. Cancer patients (breast and colorectal)
	    02. Non- cancer patients (inguinal hernia and thyroid)
	
	    Numerator Source: Clinic and Ward of a Hospital

Denominator	Total number of surgeries performed on that month,
	    01. For cancer patients (breast and colorectal)
	    01. For non- cancer patients (inguinal hernia and thyroid)
	    Denominator source; OT of a Hospital

Standard	To be determined after one year of implementation
Rationale	Patients may wait for health services for a number of reasons, including a lack of medical equipment or shortage of hospital beds, lack of OT time, short-staffing, or inefficiencies in the organization of services. Excessive waiting times may lead to adverse health effects such as stress, anxiety or pain. Dissatisfaction and strained patient-doctor relationships also damage public perceptions of the health system.
Data collection methods required, if any	Collected every month and presented at the performance review meeting held at the D / HQS by line ministry and provincial ministry institutions

1.3 Percentage of Surgical facilities using the 'Surgical Safety Checklist'

Indicator definition	A surgical facility using the 'Surgical Safety Check List' is defined as a surgical facility carrying out surgeries using 'surgical safety checklist' for all major and minor surgeries.
Numerator	Total number of facilities are using completed surgical safety checklist' for their all major and minor surgeries *Data Source; OT of a Hospital*
Denominator	Total number of facilities those are carrying out major and minor surgeries *Data source*; *Ministry of Health*
Standard	100%
Rationale	Approximately half of the adverse events related to surgery are potentially preventable. The regular use of the WHO recommended surgical safety check list in other countries has shown to improve the safety of surgery and reduce the adverse events by more than one third.
Special data collection methods required, if any	Collected every month and presented at the performance review meeting held at the D / HQS by line ministry and provincial ministry institutions
Comments	There should be a column in the register(to check whether check list is filled or not)

1.4 Rate of Surgical Site Sepsis

Indicator definition	Surgical site infections are one type of nosocomial infections that occur at the surgical site within a defined time frame after undergoing a "clean" surgical procedure.
Numerator	Number of Surgical Site Infections detected in a month *Source; Surgical wards and surgical clinics*
Denominator	Number of Clean Surgeries done in that month *Source; Surgical wards and OT in a Hospital*
Standard	< 2%
Rationale	Surgical Site Infection (SSI) prolongs the hospital stay and requires the use of expensive antibiotics and additional procedures which have a significant burden on the economy of the health system. Assessing the current status of SSI will help to determine whether any intervention is needed.
Data collection methods required, if any	The process of reporting SSI must be revisited to correct the failures in the process of reporting. Collected every month and presented at the performance review meeting held at the D / HQS by line ministry and provincial ministry institutions
Comments	Need to maintain an infection control register in the ward. The infection unit is responsible for supervision, collection of data and for action.

1.5 Average hospital stay after an index operation(ex: Appendicitis, inguinal hernia, amputation for diabetic gangrene)	
Indicator definition	Average length of stay after an index operation refers to the average number of days that patients spend in hospital after an index operation. The average length of stay in hospitals is often used as an indicator of efficiency.
Numerator	Cumulative number of in patient days from surgery to discharge from hospital in a quarter *Source; Surgical wards and surgical clinics*
Denominator	Total Number of admissions to surgical wards/ ward for surgeries in the given period *Source; Surgical wards and OT in a Hospital*
Standard	
Rationale	Hospital inpatient care constitutes a significant amount of health budget in Sri Lanka. Thus, unnecessary inpatient days of care will have an impact on the health care cost. Similarly, prolonged stay will affect the patient and his/her family financially in terms of working days lost and disruption of daily life.
Data collection methods required, if any	Collected every month and presented at the performance review meeting held at the D / HQS by line ministry and provincial ministry institutions
Comments	Add a separate column into the existing ward admission register.

7. Clinical Indicators of Paediatrics

1.1 Hypothermia on admission to Neonatal Unit when transferring from one institution to another (outside born baby) or from the maternity unit to the neonatal unit in the same hospital (in born baby).

Indicator definition	Neonatal hypothermia, defined by the World Health Organization (WHO) as axillary temperature less than 36.5°C.
Numerator	*Number of babies affected by hypothermia* *If the baby is an **outside** born baby, mark "**O**", and if the baby is an **Inborn baby** mark "**I**")* *Source: QHT of BHTs in neonatal care unit and admission register*
Denominator	*Total number of babies admitted to neonatal care unit* *Source: neonatal care unit admission register and BHTs*
Standard	<10% of total admission to neonatal care unit.
Rationale	Neonates, particularly preterm and low birth weight infants are very susceptible to environmental hypothermia; other conditions specially sepsis, hypoglycemia and respiratory distress increase the risk. It can be prevented by keeping the baby warm by kangaroo mother care, keeping the baby covered by warm cloths and placing the baby under light. When facilities are available to nurse the baby inside an incubator or under a radiant warmer. It is a major contributor to neonatal mortality and morbidity all over the world
Special data collection methods required, if any	Collected quarterly and presented at the performance review meeting held at the D / HQS by line ministry and provincial ministry institutions
Comments	Identifying hypothermia in neonates will reduce the mortality and also will improve the neuro-developmentally intact survival.

1.2 Re-admission to the ward with wheezing who had bronchiolitis under one year of age.	
Indicator definition	Admission to the ward with wheezing within 30 days of index admission is taken as readmission
Numerator	Number of patients re-admitted with wheezing to the ward within **30 days** of previous admission. *Source: admission book to the ward.*
Denominator	Total number of admissions with wheezing to the ward. *Source: admission book to the ward.*
Standard	
Rationale	Wheezing is a major cause for admissions to Pediatric wards. Readmission to the pediatric wards could be minimized by providing appropriate care at the ward.
Special data collection methods required, if any	Collected quarterly and presented at the performance review meeting held at the D / HQS by line ministry and provincial ministry institutions
Comments	Wheezing is the commonest cause for admissions to a Paediatric ward. Appropriate management at the ward before discharge will significantly reduce the readmission to the Paediatric ward.

1.3 Readmission rate within 14 days following discharge from a Paediatric ward.

Indicator definition	A readmission is defined as an unplanned subsequent admission to a Pediatric ward for the same index reason in the same or in a different hospital within 14 days of discharge from a hospital due to the same illness. The readmission rate for a year is defined as: The number of readmissions to a Pediatric ward in a given year -- X 100 The total number of admission to a Pediatric in a given year
Numerator	Number of readmissions to a Paediatric ward *Source: Paediatric ward admission register and discharge register.*
Denominator	Total number of admissions to a Paediatric ward *Source: Paediatric ward admission register.*
Standard	
Rationale	Readmission to a Paediatric ward indicates poor quality of care provided during the previous admission.
Special data collection methods required, if any	Collected quarterly and presented at the performance review meeting held at the D / HQS by line ministry and provincial ministry institutions
Comments	Many readmissions are the result of poor quality of care provided on the previous admission. By having a proper discharge plan, readmissions could be minimized.

1.4 Hypoglycemia on Admission to the Neonatal Unit when transferring from one institution to another (Outside born baby) or from the maternity unit to the neonatal unit in the same hospital (In born baby).

Indicator definition	During the normal transition to extra uterine life, blood glucose concentration in the healthy newborn falls during the first two hours after delivery, reaching a level that usually is no lower than **45 mg/dl** (for both term and preterm babies)
Numerator	Number of babies admitted to the neonatal unit with hypoglycaemia. (If the baby is an outside born baby, mark "O", if the baby is an Inborn baby mark "I") *Source: Neonatal unit BHTs*
Denominator	*Total number of babies admitted to Neonatal unit.* *Source: Neonatal unit admission registers.*
Standard	<10%
Rationale	Neonatal hypoglycaemia could be symptomatic or asymptomatic. Symptoms of neonatal hypoglycaemia are nonspecific. If not managed appropriately, it could lead to mortality. If survives will lead to permanent physical and neurodevelopmental disabilities.
Special data collection methods required, if any	Collected quarterly and presented at the performance review meeting held at the D / HQS by line ministry and provincial ministry institutions
Comments	Prolonged or persistent neonatal hypoglycaemia leads to mortality and permanent disabilities in the event of survival.

1.5 Case fatality rate in Dengue Hemorrhagic Fever

Indicator definition	Over 90% of deaths due to dengue occur in group of patients who develop Dengue Haemorrhagicfever (DHF) where the primary pathophysiological abnormality seen in acute increase in vascular permeability that leads to leakage of plasma into the extravascular compartment, mainly pleural and peritoneal space resulting in haemoconcentration and hypovolaemia or shock. Case fatality rate is the proportion of deaths within a designated population of "cases" (people with a medical condition), over the course of the disease.
Numerator	*Number of deaths due to dengue fever* *Source: Ward BHTs/ICU register/Death register*
Denominator	*Total number of patients diagnosed with Dengue illness.* *Source: ward BHTs*
Standard	0.2%
Rationale	DHF is a sneak killer, although with proper medical care the death rate is less than 1% of this group. DHF appears AFTER a first bout of fever, usually on day 4 or day 5 of a dengue illness. The infection causes fluid to leak from small blood vessels, which can lead to profound shock, organ damage, and death.
Special data collection methods required, if any	Collected quarterly and presented at the performance review meeting held at the D / HQS by line ministry and provincial ministry institutions
Comments	Dengue case fatality rate can be reduced by seeking early healthcare services, early diagnosis and good patient management. It is a "predictably treatable disease". In difficult cases it is best to seek expert opinion that can further reduce death rate. It is a good indicator of the quality of care in the country.

8. Clinical Indicators of Obstetrics & Gynaecology

	1.1 Labour Induction Rate
Indicator definition	Artificial initiation of labour by medical or surgical methods on a pregnant mother who is not already in labour.
Numerator	Number of inductions *Numerator Source : BHTs*
Denominator	Total number of births in the unit *Denominator Source : Birth Register*
Standard	optimum 20%
Rationale	Sri Lanka is reported to have a high induction rate. This needs resources for the procedures and monitoring. The labour will be more painful, needing pain relief and carries higher rate of complications to both mother and baby including failure of induction and high LSCS rate.
Special data collection methods required, if any	Collected every month and presented at the performance review meeting held at the D / HQS by line ministry and provincial ministry institutions

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1.2 Episiotomy rate	
Indicator definition	Surgical incision made at the perineum at the time of vaginal delivery.
Numerator	Number of Episiotomies Data source – BHTs
Denominator	Total number of vaginal deliveries Data source – Birth register
Standard	Optimum 25%
Rationale	Episiotomy rate in Sri Lanka is supposed to be high. It needs trained people to perform and correct sutures. Post-partum complications are higher including pain, break down, haematoma and dyspareunia.
Special data collection methods required, if any	Collected every month and presented at the performance review meeting held at the D / HQS by line ministry and provincial ministry institutions

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	1.3 Caesarian section rate
Indicator definition	Delivery of a baby through abdominal route using a surgical incision.
Numerator	Total number of Caesarian section Source – Birth register
Denominator	Total number of deliveries *Data Source; Birth register*
Standard	Reduce up to 20%
Rationale	In Sri Lanka Caesarian rate is reported to be too high. It is reported to be not carrying improved maternal or peri-natal outcomes. This is associated with increased work load, cost and long term problems.
Special data collection methods required, if any	Collected every month and presented at the performance review meeting held at the D / HQS by line ministry and provincial ministry institutions

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1.4 Proper use of Partogram	
Indicator definition	Partogram is a pictorial documentation of progress of the events in labour.
Numerator	Number of completed Partograms *Data Source; Partograms attached to BHTs*
Denominator	Total number of Partograms *Data source*; Partograms attached to BHTs
Standard	100% at least 50%
Rationale	Partogram monitors many parameters in labour. In this clinical document, foetal heart rate, uterine contractions, cervical dilatations, descent of presenting part and colour of liquor are documented and monitored. Rational use of partogram will identify problems in labour early and timely interventions could be taken to minimize maternal and foetal complications.
Special data collection methods required, if any	Collected every month and presented at the performance review meeting held at the D / HQS by line ministry and provincial ministry institutions

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1.5 Average waiting time for routine major Gynaecological surgery	
Indicator definition	Routine non-malignant Gynaecological surgery has a waiting list. Waiting time is taken as time taken from the decision making for the surgery to the date of surgery performed.
Numerator	Total number of weeks of waiting time for all Gynaecological non-malignant major surgeries performed. *Data Source; Clinic notes and BHTs.*
Denominator	Total number of Gynaecological non-malignant major surgeries *Data Source; Operation Theatre register.*
Standard	4 weeks
Rationale	Routine non-malignant surgeries need not to be done urgently. Early surgery is beneficial for the patients. The time a patient has to wait in the waiting list reflects the quality of the services. It depends on the work load, availability of human and physical resources. If the waiting time is less, patients will have better satisfaction.
Special data collection methods required, if any	Collected every month and presented at the performance review meeting held at the D / HQS by line ministry and provincial ministry institutions

9. Follow up plan

These indicators are measured at the hospitals and to be presented at the Quarterly performance review meetings held at the Directorate of Healthcare Quality & Safety.

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Directorate of Healthcare Quality and Safety,

Ministry of Health, Nutrition & Indigenous Medicine