

SE 3: Programme Service Management and Delivery (Healthcare Facility level)

Overview

In any healthcare facility that offers paediatric services, it is essential that all personnel are able to manage patients in a paediatric emergency. “The WHO/UNICEF guidelines for *Integrated Management of Childhood Illness* (IMCI) offer simple and effective methods to prevent and manage the leading causes of serious illness and mortality in young children. The clinical guidelines promote evidence-based assessment and treatment using a syndromic approach that supports the rational, effective and affordable use of drugs. The guidelines include methods for checking a child’s immunization and nutrition status; teaching parents how to give treatments at home; assessing a child’s feeding and counselling to solve feeding problems and advising parents about when to return to a health facility. The approach is designed for use in outpatient settings including those with limited diagnostic tools, limited medication and limited opportunities to practice complicated clinical procedures. This requires an integrated, multidisciplinary approach and the coordination of skills of these disciplines. The guidelines are adapted for Botswana to make them consistent with national treatment guidelines and to cover the most serious childhood illnesses commonly seen at first level facilities in the country. The guidelines include guidelines for families caring for children at home.

The standards in this document combine IMCI with Emergency Triage Assessment and Treatment (ETAT) which was developed by WHO based on Advanced Paediatric Life Support (PALS) guidelines implemented in developed countries.

The first step in establishing a facility IMCI programme is the development of protocols relating to:

- The levels of care to be provided (assessment, classification of symptoms, identification of illnesses, treatment, counselling, outreach programmes, referral, etc.)
- Providing sufficient personnel trained in ETAT, paediatric assessment, classification of illness, etc. depending on the size and service rendered at the facility
- The skills, training and competence required
- Adequate and safe building structures
- Availability of equipment, medication, and support services

The IMCI programme-specific service management and delivery standards define the performance expectations, structures and functions that must be in place at **individual facility and institutional level** for the clinical programme to succeed.

Standards are applicable to all private and public healthcare facilities providing paediatric (IMCI) services.

The Performance Indicators in SE3 of the standards are arranged according to the Donabedian quality model of “Structure- Process-Outcome”.

The Botswana Standards for Quality and Safety in the delivery of healthcare for hospitals and clinics and/or external international accreditation bodies’ standards provide a solid foundation for the IMCI programme-specific standards. The IMCI standards set additional, specific requirements for achieving optimal outcomes in care and reduction in paediatric morbidity and mortality.

It is therefore important to understand that all standards for relevant service elements such as management and leadership, human resource management, administrative support, pharmaceutical service, laboratory service, hotel services etc. in the Botswana Hospital and Clinic Standards apply and could be assessed during a programme assessment should there be a need based on the identification of serious deficiencies.

A clear understanding and compliance with the Botswana standards should therefore be in place prior to implementing the programme standards.

Standards

3.1 *Programme service management*

3.1.1 *The facility’s clinical and managerial leaders are identified and are collectively*

responsible for defining the programme's human resource needs and creating the plans and policies needed to fulfil these needs.

Overview and Standard Intent

The facility's senior management, service and/or unit managers are ultimately responsible for the management of all services rendered including services related to a specific clinical programme. In addition, a designated individual (Focal Person), officially nominated in writing by the facility manager and/or the District Programme Coordinator, oversees the day-to-day functions of the programme. This individual must have received training as a Focal Person for the programme (train-the trainer) and, depending on the size and level of the facility, could be the facility manager, service manager, unit manager, senior clinician, senior registered nurse or other appropriately qualified professional.

The Focal Person position is not a new position, duties are rendered in addition to regular professional duties and responsibilities, however, the individual's line manager should allow for sufficient time to provide the necessary programme support (training, auditing etc.) and for attending programme meetings and other related activities.

The Focal Person is supported by an interdisciplinary team that includes individual professionals with expertise in and/or knowledge about the programme's specialised care, treatment and services to ensure that paediatric and IMCI care for patients is patient centred, integrated and coordinated with the services provided by the facility and within the district.

The programme (IMCI) team should actively participate in the development and design of the care, treatment and services provided by the facility.

3.1.1 Criteria

3.1.1.1 An appropriately qualified and experienced individual (Focal Person) has clearly defined responsibilities and accountability for all aspects of the service.

Guideline Statement:

This criterion requires an organisational chart which illustrates the relationship between the Focal Person and leadership positions in the organization. Responsibilities and accountabilities must be contained in a job description with clear performance indicators. Proof of qualifications and experience in paediatric care and extensive training in IMCI and ETAT guidelines must be available. A document/letter, signed by the Focal Person, informing him/her of the additional designated responsibilities must be available in the personnel file.

3.1.1.2 The Focal Person compiles and provides reports to the District Programme Coordinator and/or programme leaders for feedback on a regular basis.

Guideline Statement:

The IMCI Focal Person in the facility is managed according to the facility's line-management structure but has the additional responsibility of reporting on the programme to the District Programme Coordinator. The manner of reporting should be determined by the IMCI programme leaders, for example through monthly reports, referral facility cluster meetings (sub-district meetings), through the facility management structure etc. Frequency should be at least monthly. Documented evidence is required.

3.1.1.3 At least one qualified person is available at all times (medical practitioner or paediatric nurse practitioner) to provide guidance and/or participate in the management of paediatric emergencies.

Guideline Statement:

This is dependent on the level of the facility and will be assessed by reviewing the off-duty schedule for nurses or the duty roster for doctors and on-call lists. The qualifications of personnel allocated to each shift will be reviewed to verify compliance with the requirement of the criterion.

3.1.1.4 An interdisciplinary programme team has been established and meets at regular

intervals.

Guideline Statement:

Representation on the team is dependent on the level of the facility and services provided. Documented evidence of team names and minutes of regular meetings is required.

Members include some or all of the following professionals and representatives from services relevant to the level of the facility:

- *The facility's IMCI Focal Person*
- *The facility's senior paediatric registered nurse*
- *A qualified medical practitioner with paediatric privileges and appropriate training and expertise in Paediatric Advanced Life Support (PALS) and/or Neonatal Resuscitation Programme (NRP)*
- *A qualified medical practitioner or nurse anaesthetist with anaesthesia privileges*
- *Infection control specialist*
- *Radiology support services*
- *Registered pharmacist*
- *Laboratory support services*
- *Blood bank services*
- *Occupational health representative*
- *Dietetics*
- *Social worker*

3.2 Human resources management

3.2.1 Documented training and skills development systems are in place for IMCI and ETAT service providers and are implemented.

Overview and Standard Intent

Inconsistent availability of healthcare professionals who have the necessary skills to deal with paediatric illnesses and emergencies has been identified internationally as one of the main causes for paediatric and neonatal morbidity and mortality.

The facility's HR department, together with line managers, service managers, Focal Persons and programme teams have to determine the staffing norms, formal training needs and skills required within the facility to render a safe and effective IMCI service at all times during the facility's operational hours. This should include emergency triage assessment and treatment of paediatric patients.

The programme team should actively participate and support the facility and district programme leaders in the development and design of the care, treatment and services provided by the facility as well as the development of education programmes based on the needs of clinical staff and the catchment population served.

Some team members such as paediatricians, medical practitioners and allied professionals, who are full time employees at hospitals only, would also be responsible to support the programme with training, mentorship, out-reach and skills development at clinics and health posts within the hospital's referral network.

Where volunteers such as community health workers, health promotion workers and family members are involved to support the programme, the necessary orientation and education has to be provided to ensure safe and effective service delivery.

Volunteers are not formal employees of the facility and should therefore not be allowed to work unsupervised in order to safeguard patient safety. They have to be fully orientated to their functions within the facility and receive the necessary training with regard to, for example infection control, patient safety, waste management etc.

3.2.1 Criteria

3.2.1.1 Minimum critical competencies required for any/all professional nurses, medical practitioners and other professionals providing ETAT and Paediatric support are identified and assessed.

Root Criterion:

Guideline Statement:

Each employee's ability to perform the listed critical competencies is assessed on an ongoing basis through observation and formal protocols by service and unit managers, Focal Persons, mentors and other designees as required. This assessment is documented.

Critical competencies include at minimum:

ETAT:

- Skills to triage all sick children when they arrive at a health facility into the following categories (This applies to all healthcare workers where paediatric services are provided, including non-clinical staff)
 - those with emergency signs
 - those with priority signs
 - those who are non-urgent cases
- Ability to assess a child's airway and breathing and give emergency treatment
- Ability to assess the child's status of circulation and level of consciousness
- Competent to manage shock, coma and convulsions in a child
- Ability to assess and manage severe dehydration in a child with diarrhoea

IMCI - The sick infant age birth to 2 months:

- Assessment of the infant and checks for diarrhoea, feeding, dehydration, jaundice, HIV status, signs of bacterial infection and immunization status
- Competent in the classification of the infant according to the IMCI colour coded classification table
- Use of charts, reports and recording forms
- Treatment protocols according to classification (priority, urgent pre-referral and non-urgent)
- Referral procedures for urgent and emergency cases
- Communication and counselling of caretakers and mothers
- Follow-up care
- Privacy, confidentiality and security of patients and family
- Identification protocol of the patient

IMCI - The sick child age 2 months up to 5 years:

- Assessment and classification of the child
- Recognizing general danger signs
- All aspects of cough and difficult breathing
- All aspects of diarrhoea
- All aspects of fever
- Assessment of ear problems
- Identification of malnutrition and anaemia
- HIV
- Vitamin A status
- Deworming
- Immunization status and other problems
- Use of charts, reports and recording forms
- Treatment protocols according to classification (Priority, urgent pre-referral and non-urgent)
- Referral procedures for urgent and emergency cases
- Communication and counselling of caretakers and mothers
- Follow-up care
- Privacy, confidentiality and security of patients and family
- Identification protocol of the patient

Documented evidence (for example HR files, training data, minutes of drills and desk top exercises) is required.

- 3.2.1.2 Staffing norms are determined for the allocation of appropriately trained healthcare professionals required to meet the IMCI and ETAT programme's scope of care, treatment and level of services it provides at all times during official facility hours.**

Guideline Statement:

At health post and clinic level a qualified, full time IMCI and ETAT trained registered nurse renders the service. It is preferable that the position be filled by a paediatric qualified registered nurse.

A designated medical doctor is available on call for each cluster of clinics and health posts.

At primary and district hospitals a full time medical practitioner or senior paediatric registered nurse leads the programme supported by IMCI and ETAT trained registered nurses.

At national referral hospitals the programme is led by a team of full time medical specialists (paediatricians, neonatologists) and senior registered nurses with paediatric nursing care qualifications.

A list of names and duty roster with contact numbers of team members should be displayed in relevant service areas and units. The list should include clinical support services and allied health professionals. The list must be examined for evidence of adequate numbers of the various categories of personnel in relation to the type of patients, acuity levels, monthly visits, bed occupancy levels etc.

- 3.2.1.3 The employees rendering IMCI and ETAT programme services have education, experience, training and certification consistent with the programme's scope of care, treatment and services.**

Guideline Statement:

Service and unit managers together with programme leaders are responsible for ensuring that all professional staff who render IMCI and ETAT services have received appropriate training and practice within their scope of professional licensure, certification and competency. The qualifications, training, experience and skills of staff who are rendering paediatric health services in the facility are evaluated on an ongoing basis by service and unit managers, Focal Persons, mentors and other designees as required. Documented evidence in the HR personnel files is required. ETAT training should be extended to all employees involved with the service, including non-clinical staff.

- 3.2.1.4 Responsibilities and accountabilities of the employees rendering IMCI and ETAT programme services are defined.**

Guideline Statement:

Professional responsibilities depend on the level of facility and type of services rendered and are defined according to the programme's policies, protocols and regulations.

Within the team, additional responsibilities for mentorship and training, clinical audits, patient education programmes, data collection, monthly reports etc. assigned to individuals have to be identified and documented in the individual Job Descriptions. Documented evidence in the HR file and minutes of meetings is required.

- 3.2.1.5 ETAT and IMCI specific orientation and training needs for designated healthcare professionals who render paediatric services are identified and communicated to the District Programme Coordinator.**

Guideline Statement:

Designated professional healthcare workers' ability to perform assessment, classification, effective triage, treatment, follow-up and counselling for all paediatric patients as per the **ETAT and IMCI Training Manuals** are assessed and training needs identified. Information is regularly communicated to the district coordinator. Documented evidence in the HR files and minutes of meetings is required.

- 3.2.1.6 ETAT and IMCI specific orientation and training for designated healthcare professionals and non-clinical staff (for triage) who render paediatric services is implemented.**

Guideline Statement:

*Designated professional healthcare workers (and non-clinical staff for triage) responsible for rendering paediatric care are fully trained as per the **ETAT and IMCI Training Manuals**. Documented evidence of a district and facility wide training plan and the completion thereof, including training certificates in the HR files and minutes of meetings, is required.*

3.2.1.7 Critical competencies of employees that render IMCI services are assessed through observation on an ongoing basis.

Guideline Statement:

Competencies of designated professional healthcare workers responsible for rendering IMCI services are assessed by line managers, mentors, senior professionals, Focal Persons and other designated professionals. Observations and recommendations have to be documented through assessment records, minutes of meetings, M&M (Morbidity and Mortality) meetings and shared with the district programme leaders. Documented evidence is required.

3.2.1.8 A mentorship protocol has been established.

Guideline Statement:

Where possible, senior/experienced healthcare professionals are partnered with less experienced employees when assessing, classifying and treating patients. Documented evidence, for example a mentorship plan with competency assessments, must be provided.

3.2.1.9 Where volunteers are used, they have received the required orientation and training relevant to the functions that they perform within the facility.

Guideline Statement:

A list with volunteer names and orientation and training received has to be available. The organisation must have a policy on volunteer work that clearly delineates their functions.

3.2.1.10 Where volunteers are used, they work under the guidance of the facility manager or his/her delegate in the employ of the facility.

Guideline Statement:

Documented evidence has to be provided.

3.3 Clinical practice guidelines, protocols and policies

3.3.1 Clinical practice guidelines and protocols are used to guide patient care and reduce undesirable variation.

Overview and Standard Intent

Detailed history taking and comprehensive physical examination are essential skills for all healthcare professionals to achieve good clinical practice outcomes. This requires competence, experience, continuous practice and sound clinical knowledge and skills.

Evidence based treatment protocols and clinical guidelines based on current best practice principles ensure that optimal treatment can be achieved through uniform approaches to specific aspects of patient care. Clinical practice guidelines provide a means for improving quality and assist practitioners and patients in making clinical decisions. Consideration should be given to providing guidelines for high risk, high volume and high cost conditions as these are the areas that represent the highest risk to patients and the facility. In addition to the required protocols for performing IMCI services, guidelines should be available for conditions which are rarely seen but may have severe consequences for patients if misdiagnosed or mismanaged, for example malaria in a non-endemic area.

Guidelines are found in the literature under many names including practice parameters, practice guidelines, patient care protocols, standards of practice, care pathways, etc. Guidelines and protocols may be provided and/or endorsed by national programme directorates, international professional and advisory bodies (for example WHO) or developed locally by the interdisciplinary programme team.

Regardless of the source, the scientific basis of guidelines should be reviewed and approved by the clinical programme leaders and clinical practitioners before implementation. This ensures that they meet the criteria established by the leaders and are adapted to the community, patient needs and hospital resources.

Protocols and guidelines must be available to professional staff and service providers at all times in the form of posters and manuals (paper based and/or electronic) and periodically updated according to documentation policies. Emergency protocols such as triage, resuscitation etc. should be published in work areas as charts for easy reference.

Documentation and record keeping must be comprehensive and of a high standard. Quality assurance through clinical audits, documentation audits, inspections and M&M (Morbidity and Mortality) meetings ensure that guidelines are adhered to and standards are achieved. Monitoring implementation of these guidelines provides the necessary information to ensure that the required standards of care are met for all relevant patients and services.

Clinical drills to help service providers prepare for high risk events with a low rate of occurrence and subsequent debriefings to evaluate team performance and identify areas for improvement should be performed on a regular basis at least quarterly.

3.3.1 Criteria

3.3.1.1 Clinical practice guidelines and protocols required to meet the ETAT and IMCI programme's scope of care, treatment, and level of services are available.

Guideline Statement:

Guidelines should include the process of assessment, classification, treatment, counselling and follow-up care. Guidelines for at least the following should be available:

- Guidelines for ETAT
- Guidelines for IMCI

3.3.1.2 Clinical practice guidelines and protocols are based on international and national care guidelines, clinical evidence and IMCI subject matter.

Guideline Statement:

Guidelines developed by WHO for ETAT and IMCI should be adapted for patient profiles in the country.

3.3.1.3 The implementation of guidelines and protocols is monitored as part of a structured clinical audits.

Guideline Statement:

Documented evidence such as clinical audits reports of medical records/forms must be made available.

3.3.1.4 Results of the facility's audits are provided to and analysed by the facility and programme leaders.

Guideline Statement:

Analysed audits results should be available at the facility and reported to the Programme Coordinators. When necessary, corrective action must be taken through documented performance improvement activities.

3.3.1.5 Regular M&M (Morbidity and Mortality) meetings to discuss adverse patient outcomes and complications take place.

Guideline Statement:

Documented evidence such as minutes of meetings and required actions must be made available.

- 3.3.2 *Programme-specific policies and procedures and/or forms are available and implemented to support practices across the entire programme's continuum of care within the facility.*

Overview and Standard Intent

In addition to all interdepartmental and departmental policies that guide general service delivery in the facility, the specific programme related policies as listed in **SE 2** (2.2.1.2) must be distributed by the district programme leaders and made available to all personnel involved in IMCI and paediatric care. For policy implementation and service delivery to be efficient, a working framework needs to be developed with clear roles and responsibilities for each person in the team. Paediatric care is highly dependent on proper assessment and evaluation and it is therefore important to ensure that the personnel have a clear understanding of definitions, standardized terminology and content of the policies.

3.3.2 Criteria

- 3.3.2.1 **Policies, procedures and forms required to meet the ETAT and IMCI programme's scope of care, treatment, and level of services are available and implemented.**

Guideline Statement:

This refers to the policies that are relevant to the level of care provided at the specific facility. Evidence will be verified during the patient and practice record audits and personnel interviews.

- 3.3.2.2 **In-service training is provided to personnel to ensure that they understand the intent and content of the policies and procedures.**

Guideline Statement:

Where policies and procedures refer to patient care, compliance will be measured against the relevant areas in the patients' records during the record audits process.

By implication, if the policies are implemented, personnel can be considered to have been trained and this criterion will be scored accordingly.

Training could take the form of formal in-service training, introduction at orientation to policies, discussions at departmental meetings, case studies etc.

Staff interviews and documented evidence such as a training plan, training records and patient record audits is required.

- 3.3.2.3 **The patient record, immunization and growth and development charts are fully completed and up to date for each patient.**

Guideline Statement:

Evidence will be verified during the patient and practice record audits.

3.4 Facility infrastructure, furniture and utilities

- 3.4.1 *Functional facilities are available to provide safety and comfort for patients, visitors and personnel.*

Overview and Standard Intent

The design, construction, maintenance and safety of all healthcare facilities must meet current local and national building code for health facilities, zoning regulations, fire safety regulations and equipment needs. All general standards for patient consultation areas and in-patient units as per the Botswana National Healthcare Standards for Hospitals and Clinics and/or other international accreditation standards must be met.

All facilities providing paediatric care, regardless of size and resources, must comply with these requirements as part of their responsibilities to their patients, families, personnel and visitors.

The Focal Person needs to work closely with the facility and programme managers to ensure that facilities and equipment required for the programme are adequate. Management and programme leaders are kept informed of inadequate facilities, additional equipment requirements and the current state of facilities and equipment.

The reception or waiting area should be adequate to meet the needs of patients and their families for space and comfort.

Furnishings shall be constructed of materials that are fire retardant (or are made so) and can be easily cleaned with appropriate antiseptic solutions.

3.4.1 Criteria

3.4.1.1 The lay-out of the facility allows for effective flow and safety of patients.

Guideline Statement:

Paediatric patients have a special need for accommodation even in a primary healthcare setting. Due to the fact that many illnesses are contagious, the lay-out should be such that effective infection control procedures can be maintained. Adequate space for breastfeeding mothers must be provided. The prevention of injuries is an important consideration and must include measures to prevent at least falls, choking, strangulation and electrocution. Window guards are fitted and/or opening potential is limited on all windows. Electrical sockets are child proof or covered. Door latches and locks are located above child height. Floor surfaces are non-slip and clear of clutter. Areas for record storage, administrative staff, and minor laboratory tests shall be provided in a space separate and distinct from public areas.

3.4.1.2 There is a waiting area with adequate seating.

Guideline Statement:

The reception or waiting area should be adequate to meet the needs of patients and their families for space and comfort. Where play/educational areas are available, age appropriate furniture and toys are available. This requirement is a risk management measure to prevent injury from inappropriate toys, for example ingestion of small objects. It also aims to ensure that children are provided with suitable activities to avoid boredom and provide age appropriate stimulation and development while on the unit or waiting area. If such an area is provided, proper cleaning and disinfection procedures are in place.

3.4.1.3 There are areas for personnel to obtain and give confidential information to patients in privacy.

Guideline Statement:

Consultation areas for paediatric care shall be distinctly separate from the public areas and provide adequate auditory and visual privacy. Where patient interactions have to take place where no separate consultations rooms are available, the area should be partitioned with a curtain and far enough away from the public to guarantee privacy.

3.4.1.4 There are separate toilet/washroom facilities for staff and for patients/visitors.

Guideline Statement:

Separate toilet facilities should be provided for patient's family and for personnel of the facility. Facilities should include nappy changing areas for mothers with babies.

3.4.1.5 There is an area that can be allocated for patients that need to be transferred to an in-patient facility.

Guideline Statement:

IMCI care is intended as a primary service and no in-patient accommodation is required. In cases where a patient needs urgent care, referral or transport to a secondary or tertiary care facility,

appropriate accommodation must be provided while the patient waits for transport. Isolation procedures must be available when required.

3.4.1.6 Separate storage facilities are available for food products, medication and other consumables and equipment.

Guideline Statement:

Storage facilities for food, medication, linen, other consumables and equipment are separated and access is controlled. Easy retrieval of items is possible during an emergency. Multiple storage and utility space is needed. Large facilities need a separate room for each function whereas small facilities may combine space or utilise a cupboard. The following areas are required:

- A lockable drug trolley or cupboard to store medication.*
- A Clean utility area to store consumables and supplies*
- A linen cupboard for clean linen and nappies*
- An equipment store to clean and keep equipment ready for use*
- A dirty utility area for dirty linen*
- A cleaner's room to place and keep cleaning materials*
- An ORS (oral rehydration solution) preparation or storage area*

Fridges for medication, vaccines and nutritional products must be separate and kept at the correct temperatures.

3.4.2 The required furniture and utilities are available and functioning appropriately.

Overview and Standard Intent

In order to provide safe patient care, each unit requires adequate resources. An assessment is made as to whether the facility has the required furniture and plant equipment.

An uninterrupted source of safe water which is piped into the facility should be available at all times. Proper ventilation and air conditioning is vital for the prevention and treatment of infections and diseases. The facility should be equipped with a heating, ventilation and air conditioning system in good working order. Normal household lighting must be available in common areas. Consultation and treatment rooms must have adequate examination lights and there must be provision for automatic emergency lighting during a power failure.

3.4.2 Criteria

3.4.2.1 The required furniture for ETAT and IMCI services is available and functional.

Guideline Statement:

Furniture includes examination couches, tables and chairs. Furnishings shall be constructed of materials that are fire retardant (or are made so) and can be easily cleaned with appropriate antiseptic solutions.

Where indicated, mosquito nets must be available. Furniture must be adequately maintained and proof of an efficient preventive maintenance system and register must be available.

3.4.2.2 Safe handwashing facilities are available.

Guideline Statement:

An uninterrupted source of piped, clean, hot and cold water should be available at all times. Hand basins, liquid soap and paper towel dispensers should be installed in all procedure and consultation rooms. Where basins are not available in all areas or rooms, hand sanitizing dispensers must be available.

3.4.2.3 Adequate room lighting is available.

Guideline Statement:

Depending on the level and location of the facility, various sources of lighting are used such as wired electricity, generators and solar power. Back-up lighting such as generators, battery lamps or gas

lamps with adequate mantels and full gas cylinders could be considered in rural areas with inconsistent electricity supply due to power cuts. The power source for lighting must be adequate to safely perform treatment and emergency procedures.

3.4.2.4 There is a functional heating, cooling and ventilation system.

Guideline Statement:

Depending on the level and size of the facility, this could be a window fitted air conditioner, split air conditioner, packaged air conditioner or central air conditioning system. In rural areas where no mechanical ventilation system is installed, proof must be provided that the required airflow and temperatures are achieved. Evidence of documented monitoring is required.

3.5 Medical equipment, instruments and supplies

3.5.1 Medical equipment, instruments and supplies required by the programme in order to support the scope of care, treatment and services provided are available.

Overview and Standard Intent

The availability of essential medical equipment, instruments and supplies plays a major role in delivering high-quality emergency and IMCI services. The medical equipment manager is an essential member of the programme team and must ensure that relevant equipment is readily available, in working order and routinely checked according to facility policy. Periodic maintenance checks documenting functional competency and availability for each item must be documented and available on the premises of the facility. Equipment must be accessible in an area convenient for emergency application. An equipment bank for temporarily replacing essential, broken equipment should be available from a central facility in the district. Turnaround times for ordering and repairs should be determined, documented and monitored. Where a healthcare facility/medical practice does not have access to a central sterilising service (CSS), arrangements are in place to obtain sterile supplies.

An adequate supply of patient records and relevant forms must be available for existing and new patients to ensure continuity of care.

3.5.1 Criteria

3.5.1.1 Medical equipment, instruments and supplies relevant to ETAT and IMCI guidelines are available according to most current protocol.

Guideline Statement:

The requirements at minimum include:

- *Resuscitation trolley*
- *Paediatric airways*
- *Examination bed*
- *Gloves*
- *Thermometers*
- *Diagnostic set*
- *Sphygmomanometer*
- *Paediatric Stethoscope*
- *Oxygen saturation monitor/s*
- *Oxygen & nasal prongs*
- *Nebulizers & masks, spacers*
- *Suction and suction catheters*
- *Cannulas size 22 & 24*
- *Paediatric IV sets*
- *Injection packs*
- *Immunisation pack*
- *Syringes/needles*
- *Water for injection*

- Haemoglobin testing system
- Glucometer
- Rapid HIV test
- Rapid Malaria test
- Lab specimen collection tubes
- Urine analysis test strips
- ORS (oral rehydration solution)
- Nasogastric feeding tubes
- Solutions (antiseptics)
- Gentian Violet
- Ear wicking materials
- Adhesive tape
- Growth & development chart
- Measuring tape & height board
- MUAC tape
- Weighing scales
- X-ray viewer
- Side lamps
- Trolleys
- Wall clock or timing device
- Mosquito nets
- Linen
- Cups, spoons, measuring/mixing utensils
- Sterilising equipment
- Medication fridge
- Vaccine fridge
- DECAM registers
- Patient records
- Charts, booklets and recording forms
- Stationary

3.5.1.2 A preventive maintenance programme for all equipment and instruments is in place.

Guideline Statement:

Documented evidence as per Botswana National Health Quality Standards must be provided.

3.5.1.3 Deficiencies and needs are regularly documented and communicated by the Focal Person to facility and programme leaders.

Guideline Statement:

Documented evidence, for example repair requests, must be provided.

3.5.1.4 Turnaround times for ordering and repairs are monitored and analysed.

Guideline Statement:

Documented evidence must be provided.

3.5.1.5 Staff are trained and competent in the use of specialised medical equipment.

Guideline Statement:

Documented evidence must be provided.

3.6 Hotel services

Overview

The facility may employ its own personnel to provide support services such as laundry and linen management, housekeeping and catering or these support services may be outsourced, in which case

the facility delegates one or more personnel members to supervise such contracted services. There must be documented agreements with all outsourced services.

The managers/supervisors of the services work with other hospital leaders and individual programme managers to improve the quality of service delivery throughout the facility to ensure that services comply with criteria relating to management, leadership, human resource development, infection control, environmental safety and quality improvement.

In all instances, national and local laws and regulations, standards and criteria of the relevant Botswana National Quality Standards for Linen Management, Housekeeping and Food and Nutritional Therapy Services apply and evidence of implementation must be provided.

3.6.1 Systems for food and nutrition management are implemented.

Overview and Standard Intent

Facilities that provide ORT (Oral Rehydration Therapy) must have an ORT corner. If other nutrition or food is prepared on site, the kitchen shall include at minimum a designated refrigerator, cooking stove, sink, storage cabinets, disposable dishware and eating utensils and counter space for the convenience of personnel, volunteers and/or patient's families to prepare snacks.

In facilities without an inpatient unit, food may be prepared for malnutrition patients or patients that have travelled long distances. In all instances, standards and criteria for safe and hygienic food preparation apply.

Where food is provided by volunteers or families from outside the health facility, observation, advice and education should be provided relating to nutrition and hygienic food preparation. Particular attention should be paid to hand washing, the use of clean utensils and the control of flies and other vectors.

Where meals are prepared in central kitchens (such as hospitals) and transported to clinics, policies that address risks and quality criteria such as transport methods, turnaround times from kitchen to clinic, temperature and quality monitoring and 'cook-chill' (a method of food preparation used by caterers, in which cooked dishes are chilled rapidly and reheated as required) protocols must be available and implemented.

3.6.1 Criteria

3.6.1.1 A functional kitchen with equipment appropriate for the level of the facility and programme services rendered is available.

Guideline Statement:

The quantity and type of equipment must be determined based on the programme needs, number of meals required and the plating procedures. Equipment such as a kettle, stove and/or microwave should be available. A designated ORT preparation area is required.

3.6.1.2 Hygiene practices for food preparation and serving methods are implemented.

Guideline Statement:

Personal protective equipment (PPE) must be readily available and food handlers and persons not normally employed in the food service wear personal protective clothing while in the area. Education on PPE, waste management and hand washing procedures is provided. Notices displaying procedures to this effect must be available. Food waste is placed in covered containers and removed without delay from places where food is prepared.

3.6.1.3 Where families or others provide food, they are educated about the patient's diet limitations.

Guideline Statement:

Documented evidence must be available in the patient's record.

3.6.1.4 Quality and safety of food provided and transported from a central kitchen is monitored.

Guideline Statement:

Documented evidence must be provided.

3.6.1.5 A clinical dietitian is available for consultation and development of meal plans.

Guideline Statement:

Documented evidence must be provided.

3.6.2 Systems for linen and laundry service management are implemented.

Overview and Standard Intent

Inadequately cleaned and/or contaminated linen and clothing is an important contributing factor to hospital acquired infections, sepsis, morbidity and mortality. Linen, clothing and blankets should be light in colour since dark coloured linen will not show stains and dirt easily and may contribute to infections.

Facilities must have sufficient supplies of clean linen, disposable linen savers, blankets and pillows at all times. Where the laundry service is within the facility, it is designed to allow for safe and effective processing of laundry. Adequate utilities and facilities must be provided for separate sorting, processing and storage of clean and dirty linen. The capacity of the laundry must be sufficient to function 24/7 if required and contain washer and dryer equipment maintained in good working order.

Where the service is out-sourced, the arrangement between the facility and the off-site laundry clearly states the responsibility for sorting, counting, collection and delivery of linen.

Departmental and service managers are primarily responsible for the management and leadership for linen and laundry services at departmental and unit level, while the service requires clear, designated leadership from a suitably qualified individual. Evidence of support and oversight from the individual or team responsible for Infection Prevention and Control must be available.

3.6.2 Criteria

3.6.2.1 Linen and laundry supplies and facilities are adequate for the level of service and volume of patients.

Critical Criterion:

Guideline Statement:

Facilities, equipment and adequacy of volumes, types and colour of linen and linen savers will be assessed through observation and patient and staff interviews.

3.6.2.2 Policies and procedures ensure that personnel receive guidance in the functions performed.

Guideline Statement:

Policies include:

- *handling of soiled and infected linen*
- *separation of the laundry into areas for clean and soiled laundry*
- *wearing of protective clothing*
- *searching used linen for sharps and other items*
- *marking of linen to identify ownership*

3.6.2.3 A system is in place to ensure that departmental policies and procedures are known and implemented.

Guideline Statement:

This will be determined through interviews and observations. Documented evidence of signed, current policies is required.

3.6.2.4 Patients and families have received orientation on sanitary requirements for linen and clothing and infection prevention and control procedures.

Guideline Statement:

Documented evidence is required and will be confirmed during the patient record audits.

3.6.3 Systems for the management of housekeeping services are implemented.

Overview and Standard Intent

Implementation of good housekeeping practices based on sound policies and protocols are essential for providing a safe and clean environment for patients, employees and visitors and are one of the most important tools for reducing morbidity and mortality in paediatric patients.

Irrespective of whether the service is contracted out or rendered by facility employed personnel, an education programme for housekeeping staff to assist them in understanding effective methods of cleaning in different service areas and the importance of their work in preventing healthcare acquired infections must be implemented.

Policies must define the specific items to be cleaned, tasks to be performed within different locations, frequency of cleaning, method of cleaning, disinfection agents, supplies needed and procedures to be followed.

The frequency and method of cleaning is determined by the surface to be cleaned, amount and type of soiling present, amount of activity in the area, risks to patients and the purpose of the area.

Cleaning procedures shall be completed on a scheduled basis (usually daily) and must clearly differentiate between low-risk areas such as offices and staff tea rooms and high-risk areas where contamination is expected, for example procedure rooms, consultation rooms, bathrooms and areas where blood, body fluids, secretion and excretion spills occur. Surfaces that are frequently touched by the hands of healthcare workers and patients such as call bells, surfaces of medical equipment and knobs for adjustment or opening, require frequent cleaning.

Warm, soapy water is adequate for cleaning areas not directly involved in patient care, for example offices and duty rooms. A disinfectant is required when cleaning high-risk areas with a large number of pathogens. Housekeeping personnel should use the same precautions to protect themselves during routine cleaning than they would use for terminal cleaning. Masks are not needed unless the room was occupied by a patient for whom there were airborne precautions.

Adequate, safe storage such as a lockable room or cupboard, used specifically for this purpose must be available for cleaning equipment, materials and chemicals.

3.6.3 Criteria

3.6.3.1 There is an adequate number of suitably trained housekeeping personnel to provide a safe and effective service.

Guideline Statement:

Staffing needs are determined by the type of services rendered and volumes and types of patients served. Documented evidence is required.

3.6.3.2 Programme leaders and facility managers ensure that housekeeping personnel (contracted or facility employed) participate in relevant orientation and in-service training programmes (for example infection control, health and safety).

Guideline Statement:

Documented evidence such as training registers and personnel files is required.

3.6.3.3 Housekeeping policies and procedures relevant to cleaning of various service areas and equipment are available and implemented.

Guideline Statement:

A manual with the required policies and procedures based on recognised practices must be available.

3.6.3.4 Spill kits for cleaning hazardous material and blood and body fluid spills are available.

Guideline Statement:

Treatment and service areas should have adequate stock of pre-packed spill kits for hazard free blood and body fluid spill cleaning.

3.6.3.5 Adequate and secure storage areas are available for equipment and chemicals.

Guideline Statement:

Cleaning trolleys and chemicals for cleaning are safely stored out of reach of patients, children and visitors.

3.7 Pharmaceutical services

Overview

National laws and regulations as well as all the relevant standards in the Botswana Standards for Quality and Safety for Pharmaceutical Services and/or other international accreditation bodies with regard to medication management and leadership, policies and procedures, dispensing and control and storage of medication apply and must be met.

In Botswana, nurses are deployed in both acute and primary care settings and take an active part in prescription, transcription, dispensing and administration of medication.

Medical, nursing, pharmacy and administrative staff and programme leaders must work together to develop and monitor policies and procedures. In addition to the standard policies for the safe ordering, storage, prescribing, dispensing, issuing, administration and disposal of medication according to laws and regulations required in all healthcare facilities, IMCI programme-specific medication policies and protocols must be available and implemented.

Depending on the size, structure and functions of the healthcare facility, there may be a pharmacy with qualified pharmacists to dispense medication or medical and nursing personnel may issue certain medication within the service. Whatever the system, the health facility implements systems to ensure, that all pharmaceutical practices are in accordance with current legislation.

Programme leaders must be provided with data to determine how many patients in need of treatment received the treatment, follow the progress of the intervention, continuously assess the risks facing the programme and evaluate internal inventory control issues reported by facilities.

3.7.1 Medication and drug management systems are implemented.

Overview and Standard Intent

Applicable laws and regulations are incorporated into the operations of the medication management system used in the facility.

Each healthcare facility has the responsibility of identifying the individuals with the necessary knowledge and experience, who are permitted by laws, regulations or registration to prescribe or order medication. Medication use is organised throughout the facility to meet the needs of patients. Depending on the type of facility, the responsibility for medication management may be assigned to a pharmacist, a senior staff member such as the facility manager or professional nurse.

Emergency medication used for resuscitation purposes may be kept in an emergency bag in facilities without crash carts. The same principles for checking and controlling this medication must be applied as per hospital standards.

Facility pharmacists, dispensary personnel, service/unit managers and programme Focal Persons are responsible for facility level stock and quality management and communication with programme leaders.

Equipment such as designated medication fridges and medication cool bags must be available and temperatures must be monitored.

Safe administration of medication requires a strict and comprehensive protocol. The physician, nurse and other care providers work together to monitor patients on medication. Patients and/or their caregivers are educated to understand and monitor the effects of the medication that they are taking and to administer them at home. The purposes of monitoring are to evaluate the response to medication, to adjust the dosage or type of medication when needed, and to evaluate the patient for adverse effects.

Prescription writing and clinical protocols for all paediatric patients must indicate dosages in dose per weight and not age.

3.7.1 Criteria

3.7.1.1 A designated, registered professional has clearly defined responsibilities and accountability for all aspects of the pharmaceutical service.

Guideline Statement:

The responsible individual could be a pharmacist or registered professional nurse. The required professional registration and certificates must be available in the HR file and responsibilities must be clearly defined in the job description and signed by the staff member.

3.7.1.2 Cooperation exists between the programme Focal Person, programme leaders and the pharmacy and/or other relevant staff in the facility to ensure safe prescribing, ordering, storage and dispensing of programme-specific medication.

Guideline Statement:

Documentation such as minutes of multidisciplinary meetings, analysed data from patient file audits, emergency trolley/tray/pack audits and inspection reports of medication storage areas and dispensaries is available and used when determining stock levels required for essential IMCI programme medication and drugs at individual facilities.

3.7.1.3 There is a collaborative effort to develop and monitor additional medication policies and procedures specific to the IMCI service.

Guideline Statement:

Policies specific for the IMCI programme must include at a minimum:

- *Safe use of all drugs in IMCI paediatric care*
- *Complete drug list with protocols*
- *Paediatric pain management*
- *Administration of injections and intravenous infusions in the absence of a medical practitioner*
- *Emergency medication required to initiate and maintain resuscitation for paediatric patients*
- *Preparation, handling, storage and distribution of parenteral and enteral nutrition products*
- *Monitoring of paediatric patients for the effects of medication.*
- *Dispensing of medication and patient education at the time of the patient's discharge.*
- *Antibiotic usage monitoring*
- *Management of IMCI records and statistics.*

All policies should be signed by programme as well as pharmacy managers.

3.7.1.4 Functional pharmaceutical refrigerators and/or cool bags designated for storage of

vaccines and other temperature-sensitive medication are available and monitored to ensure maintenance of the cold chain.

Guideline Statement:

Refrigerators must comply with local laws and regulations for safe medication storage. No food, beverages or other items may be stored in the refrigerators. Temperature must be monitored at least twice daily during the facility's operational hours with thermometers that are approved for the purpose, easily readable, in proper working condition and accurate within a range of plus or minus two (2) degrees.

Cool bags for transporting vaccines and medication to health posts must have cold packs, buffer packs and a digital thermometer.

3.7.2 *There is a system to ensure access to appropriate medication at all times.*

Overview and Standard Intent

Patients and customers must be able to receive the drugs and medication that they need in emergencies and/or at appropriate, regular intervals close to the places where they live.

Standards for transport and supply chain support systems require that every healthcare facility that renders IMCI care is adequately supplied with the necessary drugs, medicines, consumables and vaccines at all times. (SE 2.1.6)

WHO defined essential medicine and drugs for primary healthcare and hospitals are included in the Botswana Medicine Formulary and should be available in all facilities.

Facilities that render IMCI care must have adequate and appropriate supplies of medicines and drugs for routine and emergency paediatric care at all times.

Individuals who are permitted to prescribe or order medication in emergency paediatric situations must be identified and privileged as such.

Policies and procedures define the documentation required for ordering and prescribing medication and for verbal medication orders.

Regularly updated medication protocols for specific paediatric situations, legal authorisation of professional staff and benefits and risks to the individual patient must be instantly accessible and implemented taking into account the level of facility and services rendered at the facility.

3.7.2 **Criteria**

3.7.2.1 **Appropriate drugs and medication are stocked and readily available for ordering and prescribing according to the facility's level of care, mission, patient needs and services provided.**

Guideline Statement:

Scoring will depend on the availability and appropriateness of medicine to be able to treat all conditions relevant to the level of care. The recommendations of professional national and international organisations or alternate authoritative sources guide the provision and use of medication and drugs used in IMCI Paediatric care.

For Paediatric Advanced Life Support: as per current authoritative guidelines

- Oxygen
- Glucose (Dextrose)
- Epinephrine
- Adenosine
- Amiodarone
- Procainamide
- Lidocaine

- Magnesium Sulphate)
- Applicable consumables for injectables

For IMCI: as per current authoritative guidelines

- **Antibiotics:**
 - Cotrimoxazole {Adult tablet (80mg trimethoprim plus 400mg Sulphamethoxazole)} {Paediatric tablet (20mg trimethoprim plus 100mg Sulphamethoxazole)}
 - Amoxicillin {Tablet (250mg)} {Syrup (125mg per 5ml)}
 - Gentamycin intramuscular {2ml vial containing 20mg} {2ml vial containing 80mg}
 - Benzylpenicillin {600mg vial (1 000 000 units)} or {3g vial (5 000 000 units)}
 - Erythromycin {tablets (250mg)}
 - Nalidixic Acid Suspension
- **Antimalarials:**
 - Sulfadoxine and pyrimethamine tablets (500mg sulfadoxine plus 25mg pyrimethamine)
 - Quinine intramuscular {300mg/ml (in 2ml ampoules using quinine salt)} or {150mg/ml (in ampoules using quinine salt)}
- **Antipyretic:**
 - Paracetamol {Tablet (500mg)} {Tablet (125mg)}
- **Other medication:**
 - Salbutamol spray
 - Oral Salbutamol
 - Oral prednisolone
 - Vitamin A
 - Albendazole
 - Iron
 - Chloramphenicol eye ointment
- **Vaccines:**
 - BCG, OPV, Hepatitis B, Pentavalent, Rota, PCV13, DT and measles vaccines
- **HIV and AIDS related:**
 - Lopinavir / Ritonavir (LPV/r)
 - Nevirapine (NVP)
 - Efavirenz (EFV)
 - Abacavir (ABC)
 - Zidovudine (AZT or ZDV)
 - Lamivudine (3TC)

3.7.2.2 There is a process to ensure the safe and legal prescribing/ordering of medication.

Guideline Statement:

All the relevant standards in the **Botswana and other international accreditation bodies' Pharmaceutical Service** as well as **Botswana Laws and Regulations** apply.

The **Nurses and Midwife Act 1995** specifically regulates the circumstances under which registered nurses are allowed to prescribe and administer certain medication and drugs in clinics without medical officers and/or when life threatening emergencies exist while the **Drugs and Related Substances Act 1992** grants legal authority to registered nurse professionals to prescribe specific drugs from the **Botswana National Drug Formulary**.

The programme leaders must ensure that the relevant individuals are identified, adequately trained and officially privileged through professional certification. Documented evidence is required in the job description and HR file.

3.7.2.3 The facility's professional staff adhere to laws, regulations and approved practice guidelines when dispensing and administering medication.

Guideline Statement:

Medication and drugs must be administered according to current Botswana laws and regulations. Copies of the relevant documents must be available in all facilities. Compliance will be assessed during the patient record audits.

3.7.2.4 Medication is stored, dispensed and administered in a manner that ensures safety and effectiveness.

Guideline Statement:

*All the relevant standards in the **Botswana** and/or **other international accreditation bodies** Pharmaceutical Service SEs as well as **Botswana Laws and Regulations** apply. Policies and protocols that address issues such as:*

- Management of high-alert medication*
 - Management of emergency medication trolleys and/or trays*
 - Administration of injections and IV infusions*
 - Labelling of medication, syringes and IV solutions*
 - Limitation of practice*
 - Administration of anaesthetics*
 - Management of dangerous and habit-forming drugs*
 - Separation of sound-alike, look-alike drugs and different dosages of the same drug*
 - Prevention and management of severe drug reactions, adverse events and medication errors*
- should be in place and implemented.*

3.7.2.5 Medication orders must be recorded in the patient's file and signed by the ordering person with his/her whole signature, date and time.

Guideline Statement:

Compliance will be assessed during the patient record audits.

3.8 Laboratory, blood bank and diagnostic imaging services

Overview

Blood transfusion is not indicated for basic IMCI services but is essential for referral of paediatric patients from an IMCI service. Facilities where these services are available must be identified and contact numbers available and posted.

Although there is no specific requirement for medical imaging services where IMCI care is provided, basic diagnostic imaging services should be available at all 'first referral level' facilities (clinics with beds, primary and district hospitals, private hospitals) to which patients from private and public primary healthcare facilities (health posts, clinics, private practices) can be referred and where diagnosis, treatment and care is available 24 hours per day. Clinical protocols defining indications and criteria for routine and urgent imaging technology at the different levels of care must be available at all facilities.

To improve access to reliable imaging services for appropriate management of clinical problems in rural settings, use of portable imaging equipment should be considered.

Where possible, non-specialist medical practitioners and nurses should receive basic training to operate equipment and interpret findings.

3.8.1 Adequate laboratory services are available 24/7.

Overview and Standard Intent

Any facility that offers IMCI care must have the ability to conduct on-site, point-of-care, basic laboratory tests for routine conditions, taking into account the characteristics and needs of the population served.

A laboratory service must be available for referral tests, as well as the oversight of quality control of point-of-care tests.

In a health post or clinic, investigations are usually performed by trained nurses. A designated laboratory area may be a counter in the service area or a separate room equipped with the necessary and functioning equipment and reagents needed to conduct the tests. Protocols, guidelines and/or posters demonstrating correct procedures for performing on-site and referred tests should be available in the service area.

Laboratory request forms should be standardised, comply with Botswana standards and provide information regarding the acuity of the patient.

Hospital and independent referral laboratories must have the capability to immediately receive, process, and report results 24 hours a day, 7 days a week.

Realistic turnaround-times that consider distance from the laboratory, transport services and volumes received should be agreed upon and monitored for individual facilities.

Designated district laboratory staff must provide oversight to clinics and health posts and submit regular reports for monitoring the quality of equipment, specimens and results. Suitable backup systems and plans should be in place including a system and protocol for reporting and responding to critical results.

3.8.1 Criteria

3.8.1.1 The facility provides point-of-care laboratory testing essential to the immediate classification and treatment of the patient.

Guideline Statement:

The necessary reagents, kits and equipment for the following on-site investigations should be available in all service areas of any facility that renders IMCI care and should include:

- *Chemical examinations of urine by stick or tablet methods or both (including urine ketones)*
- *Haemoglobin or haematocrit*
- *Blood sugar*
- *Rapid test kits for HIV, Syphilis, Malaria (in endemic areas)*

3.8.1.2 The facility has access to 24/7 laboratory services.

Guideline Statement:

Every facility must be included in a coordinated district laboratory referral system/plan that considers transport of specimens and patients, designated dates/days for routine testing and emergency situations. Facilities where these services are available must be identified and contact numbers available and posted.

Documented evidence is required.

3.8.1.3 Protocols for requesting investigations required for the management of specific paediatric conditions and complications must be available.

Guideline Statement:

The protocols should include the specific investigations required as per clinical guidelines, the appropriate specimen collection procedure, the designated referral laboratory and additional patient information required.

Examples include full blood counts, blood cultures, toxicity screens etc. Documented evidence is required.

3.8.1.4 Turnaround times for laboratory results are monitored.

Guideline Statement:

Turnaround times from sending specimens by the facility/in-patient unit to receiving results must be determined and monitored by individual facilities. Analysed data required by the M&E framework must be available and provided to the District Programme Coordinator.

3.8.1.5 A laboratory specimen register is kept updated and missing results are followed up.

Guideline Statement:
Documented evidence must be provided.

3.9 Community and patient involvement and education

3.9.1 Community outreach programmes are implemented.

Overview and Standard Intent

IMCI care at the community level has to be supported by trained cadres of community health workers (CHW). In Botswana, the concept of community health workers was conceived in the early 1970's with the establishment of the Family Welfare Educators. In the late 2000, the cadre was renamed Health Education Assistants (HEAs).

Designated HEAs within the catchment population of the facility (especially health posts and clinics) should receive basic training in paediatric care and provide this care in homes in the communities in which they work. Interventions which have proven effectiveness in reducing paediatric mortality should be included in 'enhanced trainings' for IMCI HEAs. Patients, families and the community receive continuous, appropriate high quality information on the importance of paediatric care and institutional deliveries. Regular home visits should be provided by HEAs for identified patients.

Community specific outreach projects and interventions that provide and increase awareness of the programme's facilities and services such as sign boards, detailed locations and contact numbers of facilities, use of mobile technology and integrated communication-transportation systems that function 24/7 should be encouraged by the facility's IMCI team.

The facility's IMCI team and HEAs should cooperate with local health committees and community civic organisations to improve health awareness and implement community interventions that are designed to address the most common dangerous delays that paediatric patients face in the community. Risks such as delays in deciding to seek care for a paediatric illness, delays in reaching a health facility in time, and delays in receiving quality care at health facilities must be addressed.

3.9.1 Criteria

3.9.1.1 Trained Health Education Assistants (HEAs) are available to provide training to mothers and caretakers of infants and children in the facility's catchment population.

Guideline Statement:
A current list of HEAs trained in IMCI programme related care who are affiliated with the facility is available.

3.9.1.2 Orientation and training programmes for IMCI HEAs are provided by the facility's IMCI team.

Guideline Statement:
Documented detail of content and training provided is required. Training should include reporting contagious diseases, HIV, immunization status, developmental problems, access to food and water, exposure to vectors for malaria, etc.

3.9.1.3 The facility's IMCI team promotes, supports and participates in IMCI related community outreach projects.

Guideline Statement:
A current list of projects, including home visit schedules and reports, is documented and available.

3.9.1.4 Printed health education material, in a language common to the catchment population, is distributed in key areas in the community.

Guideline Statement:

Materials such as brochures and posters are made available to community frequented centres, organisations and individuals for example schools, churches, crèches, libraries and workplaces.

3.9.2 Patient education protocols and documents (brochures) are available and implemented.

Overview and Standard Intent

Families and women of childbearing age must be provided with information regarding accessing healthcare services and providers that are available to meet paediatric healthcare needs for routine and emergency care, treatment and services within their community. This includes referrals to social service programmes, therapeutic support services, referral hospitals and healthcare specialists. Written and verbal information on how to contact staff in case of an emergent situation must be provided.

The healthcare professionals providing care must ensure that patients are informed of their rights and responsibilities. Mothers and caregivers of children should be actively involved in decisions about the care, immunization and illnesses associated with infants and children up to the age of 5 years. Care related risks, benefits and alternative treatments must be adequately explained and discussed in a preferred language, considering cultural preferences, in a way that they can understand.

Mothers, partners and families must be reminded of the importance of providing all information that is important to care, treatment, and services to healthcare providers.

Information on community resources that are available to meet the mother's and new-born's healthcare needs must be provided.

3.9.2 Criteria

3.9.2.1 Mothers and caregivers are informed on how to access care, treatment, and services.

Guideline Statement:

Compliance will be assessed by means of patient interviews and patient record audits.

3.9.2.2 Mothers and caregivers are informed about patient rights and responsibilities while receiving care, treatment and services from the Child Welfare Clinic (CWC) care programme.

Guideline Statement:

Compliance will be assessed by means of patient interviews and patient record audits.

3.9.2.3 Language and culture appropriate patient educational material for the IMCI programme are available.

Guideline Statement:

Material includes free brochures and educational wall posters.

3.9.2.4 Mothers and families receive information about the staff responsible for the delivery of their care, treatment, and services.

Guideline Statement:

Compliance will be assessed by means of patient interviews and patient record audits.

3.9.2.5 Individualised patient education is provided at each interaction and documented in the patient's record.

Guideline Statement:

At a minimum, mothers and caregivers are orientated and educated about:

- Giving inhaled Salbutamol for wheezing at home
- Giving oral drugs at home
- How to treat local infections at home (cough, eye infections, ear infections, mouth ulcers, thrush)
- Explaining why drugs are given at the clinic and at home, with side-effects, etc.
- Nutritional counselling and guidance on the 4 rules of home treatment
- Give instructions on follow-up care for acute conditions such as fever, measles with complications, ear infections, feeding problems and anaemia
- Give follow-up care for HIV exposed and infected child
- Give counselling on feeding and malnutrition
- Give instructions on when to return to the clinic
- Explain the immunization process and schedule
- Teach the caregiver how to keep a young infant warm on the way to hospital
- Teach all aspects of breastfeeding, expressing of milk, etc.
- Counsel the mother or caregiver on how to care for the young infant at home.

Evidence of compliance will be assessed by means of patient interviews and patient record audits.

3.9.2.6 A system for referrals for grief, bereavement and palliative care services is in place for mothers and/or families, if indicated.

Guideline Statement:

Documented evidence must be available. Compliance will be assessed by means of patient interviews and patient record audits.

3.10 Paediatric Medical Records and Patient registers

Overview

The medical record and facility patient register are key instruments required for collecting relevant morbidity and mortality (M&M) information and for determining risks and actions for quality improvement.

The record must capture comprehensive information about the triage, assessment and categorizing process of the patient along with treatment provided, referrals (if applicable), follow-up care and patient education.

In the public sector, the responsibility for completing the record is mostly the responsibility of nurses and starts in the primary healthcare system. In the private sector, the responsibility lies both with general practitioners and paediatricians in private practices and nurses in private hospitals.

Comprehensive and accurate completion of the medical record requires not only training and dedication, but is dependent on the availability of equipment for basic assessments, point-of-care laboratory tests, the availability of medication etc.

The IMCI programme leaders must implement a plan for continuity of health information, including sharing ongoing information about the patient's health status with secondary and tertiary service providers and healthcare organizations involved in their care.

In cases where electronic health record (EHR) systems or 'hybrid' systems are implemented, it must be determined what health information is most critical for the mother's and new-born's care, treatment, and services.

It is therefore important that to the paper-based, patient-carried medical record is still completed as well to ensure that continuity of information is maintained and available at any time, at any facility that is accessed for medical treatment and care. The record should include all completed IMCI forms and charts, immunization records, growth charts, etc. A copy of the patient carried record must be kept at the primary facility.

In addition to the medical record, the patient record must contain all other documents and information as required by the Botswana Standards for Quality and Safety in the delivery of healthcare for hospitals and clinics and/or international hospital and clinic standards.

A consent policy that considers situations specific to paediatric care should be available and relevant procedures and forms required must be implemented.

3.10.1 *The Botswana IMCI Record and all other required legal documents are fully completed and available in the patient's medical record.*

3.10.1 Criteria

3.10.1.1 The medical record captures comprehensive information about the paediatric patient.

Guideline Statement:

General information for the patient includes at least

- *Date and time of each entry*
- *Identification data on each page*
- *Medical history: past, current, family history, surgical history, allergies*
- *Social data*
- *Consent forms*
- *Health status assessment*
- *Physical examination findings*
- *Plan of care*
- *Health education*
- *Medication orders*
- *Consultative findings*
- *Diagnostic and laboratory reports, including rapid and point-of care tests*
- *Medication administration record*
- *Legible, full signatures of the physician or other healthcare professionals*
- *IMCI forms for categorizing, treatment and follow-up*
- *Referral notes*

Compliance will be assessed by means of patient record audits.

3.10.1.2 Where there is an EHR system in place, data correlates with the patient-carried medical record.

Guideline Statement:

Documented evidence must be available. Compliance will be assessed by means of patient record audits.

3.10.1.3 Measures to ensure security and confidentiality of information are implemented according to Botswana laws and regulations.

Guideline Statement:

*Guidelines, protocols and policies that provide for identification, security, confidentiality, control, retrieval and preservation of patient care data and information must be available and implemented. In this regard, the content of the **Rules of Professional Practice for Nurses (regulations 4-9)** must be known and implemented by all nurses. In larger facilities that render IMCI services, a centralised location for medical records that ensures rapid retrieval during all hours should be considered.*

3.10.1.4 A detailed consent policy in accordance with Botswana acts and regulations guides consent for out-patient treatment and other procedures.

Guideline Statement:

Issues that must be addressed include at least:

- Designated, surrogate decision-maker name and contact information
- Verbal consent procedure in case of emergency
- Refusal of consent
- Consent for treatment
- Consent in the absence of a parent or legal guardian

Documented evidence of implementation must be available. Compliance will be assessed by means of patient record audits and patient interviews.

3.10.1.5 A current patient register is available.

Guideline Statement:

All information on cases seen and discharged or referred and the outcome of treatment are correctly recorded and up to date in the register.

3.11 Assessment and Treatment of Patients

Overview

Deaths in hospital often occur within 24 hours of admission. Many of these deaths could be prevented if very sick children are identified soon after their arrival in the healthcare facility and treatment is started immediately. A process of rapid triage for all children presenting to hospital needs to therefore be put in place to determine whether any emergency or priority signs are present. Triage may be done in 15-20 seconds by medical staff or by non-medical staff (after appropriate training) as soon as the child arrives and no special equipment is needed for this. Once emergency signs are identified, prompt emergency treatment needs to be given to stabilize the condition of the child. Assessment of non-urgent cases for the signs of illnesses covered by the IMCI program must be followed and patients categorised according to their symptoms. The protocols and clinical pathways that exist for all these illnesses must be implemented, documented and followed up. Follow-up may include referral to secondary or tertiary facilities, follow-up visits at the clinic and counselling and education of the caregiver.

3.11.1 *Emergency Triage Assessment and Treatment is performed and recorded in the patient record.*

Overview and Standard Intent

The most important aspect of ETAT is to triage all sick children when they arrive at a health facility into the following categories:

- those with emergency signs
- those with priority signs
- those who are non-urgent cases

Categorizing children into these categories must be done by any staff member at first encounter with the patient. Once categorized, they are passed on for further assessment and treatment by a qualified healthcare professional.

3.11.1 Criteria

3.11.1.1 All patients are triaged and categorized upon first contact at the facility and the category is documented.

Guideline Statement:

Triage is the process of rapidly examining all sick children when they first arrive in hospital in order to place them in one of the following categories:

- Those with **EMERGENCY SIGNS** who require immediate emergency treatment
- Those with **PRIORITY SIGNS**, indicating that they should be given priority in the queue, so that they can **rapidly** be assessed and treated without delay
- Those who have no emergency or priority signs and therefore are **NON-URGENT** cases. These children can wait their turn in the queue for assessment and treatment.

The majority of sick children will be **non-urgent** and will not require emergency treatment.

3.11.1.2 All staff are trained on emergency signs and priority signs and triage posters are

available for easy reference.

Guideline Statement:

All categories of staff must be able to do emergency triage and recognise the differences between emergency, priority and non-urgent cases. All patients must be categorized accordingly and treatment has to commence as per protocols. The ABCD (Airway, Breathing, Circulation, Convulsions, Coma, Dehydration) concept is integrated in the triage process to identify emergency cases. The following priority signs must be checked

- **Tiny baby:** any sick child aged under two months
- **Temperature:** child is very hot
- **Trauma** or other urgent surgical condition
- **Pallor** (severe)
- **Poisoning**
- **Pain** (severe)
- **Respiratory distress**
- **Restless, continuously irritable, or lethargic**
- **Referral** (urgent)
- **Malnutrition:** Visible severe wasting
- **Oedema** of both feet
- **Burns**

Documented evidence is required.

3.11.1.3 Step-by-step protocols for assessment of each of the emergency and priority signs are developed, implemented, are used for competency assessments.

Guideline Statements:

Protocols for rapid assessment of all emergency and priority signs are available and may include pictures and diagrams for ease of reference and training purposes.

3.11.1.4 Step-by-step protocols for treatment of symptoms are developed, implemented and used for competency assessments.

Guideline Statement:

Treatment may involve insertion of an oropharyngeal airway, drawing of blood, setting up intravenous infusions, administration of injectable medication, etc. All possible treatment protocols must be available, and proof of competence must exist.

3.11.1.5 All assessments, treatment and follow-up care are documented in the medical record in detail.

Guideline Statement:

Assessment and treatment may be documented on pre-printed forms that provide the guidelines for the protocol. If written in free-form, all aspects of the protocol must be addressed in the documentation. This would include any Point-of-Care diagnostic testing with results, monitoring and follow-up of the child while in the unit and referrals to next levels for treatment.

3.11.1.6 Medication for emergency and priority treatment are provided as per approved protocol.

Guideline Statement:

The minimum requirement would be medication for Paediatric Advanced Life Support protocols (See 3.7.2.1) and medication as per identified protocols for emergency and priority cases.

3.11.1.7 Criteria and processes for referral to a higher level of care must be in place.

Guideline Statement:

IMCI is a primary health function and would often be located outside of facilities that can provide further treatment (secondary or tertiary). Criteria for patients that need to be referred for further treatment, especially in emergency and priority cases, must be available. The process of referral and patient transport must also be addressed in the criteria and protocols.

3.11.2 Information as required by the “Integrated Management of Childhood Illness: The Sick Child Age 2 Months Up to 5 Years” protocol is obtained and recorded.

Overview and Standard Intent

Assessment of sick children often depends on information received from the mother or caretaker. It is important to listen and ask the right questions, but also to observe the child for specific symptoms. Taking notes will ensure that the child is properly assessed and that symptoms are not overlooked. Proper clinical guidelines for illnesses covered by the IMCI program must guide the nurse through the necessary steps to be able to classify the patient, and select appropriate treatments for the child.

3.11.2 Criteria

3.11.2.1 Assessment of the child during an initial visit includes checking for general danger signs.

Guideline Statement:

When observing for danger signs determine whether the child is able to drink or breastfeed; is the child lethargic or unconscious; does the child vomit everything; has the child had convulsions? Check for the main symptoms: cough or difficult breathing, diarrhoea, fever, ear problem. Assess the child further for signs related to the main symptom and classify the illness according to the signs and which are present or absent. All assessments and findings must be documented.

3.11.2.2 Assessment, classification and treatment of the child with coughing or difficult breathing is implemented.

Guideline Statement:

The clinical WHO guidelines for assessment of cough and difficult breathing are implemented and followed. Classify the child according to the three main categories and select the appropriate treatment and follow-up times.

3.11.2.3 Assessment, classification and treatment of the child with diarrhoea is implemented.

Guideline Statement:

The clinical WHO guidelines for assessment of diarrhoea are implemented and followed. Classify the child according to the three main categories and select the appropriate treatment and follow-up times.

3.11.2.4 Assessment, classification and treatment of the child with fever is implemented.

Guideline Statement:

The clinical WHO guidelines for assessment of fever are implemented and followed. Distinction must be made between possible malaria or measles, or general fever. Possible malaria and measles cases must be further classified according to the protocols. Appropriate treatment and follow-up times must be selected and provided.

3.11.2.5 Assessment, classification and treatment of the child with an ear problem is implemented.

Guideline Statement:

The clinical WHO guidelines for assessment of ear problems are implemented and followed. Classify the child according to the four main categories and select the appropriate treatment and follow-up times.

3.11.2.6 Assessment, classification and treatment of the child with malnutrition or anaemia is implemented.

Guideline Statement:

The clinical WHO guidelines for assessment of nutritional status are implemented and followed. Classify the child according to the main categories and select the appropriate treatment and follow-up times.

3.11.2.7 Assessment, classification and treatment of the child with HIV/AIDS is implemented.

Guideline Statement:

The clinical WHO guidelines for assessment of HIV status are implemented and followed. Classify the child according to the main categories and select the appropriate treatment and follow-up times.

3.11.2.8 Assessment of the child's immunization status is implemented.

Guideline Statement:

Check vaccinations of the child and determine whether any vaccination is necessary. Specific checks must be in place for reactions to vaccines.

3.11.2.9 Assessment of other problems are documented.

Guideline Statement:

Assessment of other childhood problems must be done according to clinic or hospital clinical guidelines. This includes developmental factors and all other possible symptoms or complaints. Treatment is based on approved MOH protocols and guidelines.

3.11.2.10 A booking system for follow-up visits including an appointment register is in place and monitored.

Guideline Statement:

Mothers and caretakers are given a date and time for a follow-up visit. For each illness and classification, a guideline exists for the number of days to do a follow-up visit after the initial visit.

3.11.2.11 Clinical protocols for each follow-up visit are available and implemented.

Guideline Statement:

Follow-up visits differ from initial visits as the previous illness is tracked. If the patient exhibits any new or different symptoms from the previous illness, the follow-up visit must be treated as an initial visit.

3.11.3 Information as required by the "Integrated Management of Childhood Illness: The Sick Young Infant Age Birth Up to 2 Months" protocol is obtained and recorded.

Overview and Standard Intent

Young infants have special characteristics that must be considered when classifying their illnesses. They can become sick and die very quickly from serious bacterial infections. They frequently have only general signs such as few movements, fever, or low body temperature. Mild chest in-drawing is normal in young infants because their chest wall is soft. For these reasons, assessment, classification and treatment of the young infant is somewhat different to that of an older infant or young child.

The service is not used for a sick new-born, that is a young infant who is less than 1 week of age. In the first week of life, new-born infants are often sick from conditions related to labour and delivery, or have conditions which require special management. New-borns may be suffering from asphyxia, sepsis from premature ruptured membranes or other intrauterine infection, or birth trauma or they may have trouble breathing due to immature lungs. Jaundice also requires special management in the first week of life. For all these reasons, management of a sick new-born is somewhat different to caring for a young infant age 1 week up to 2 months.

3.11.3 Criteria

3.11.3.1 Assessment of the sick young infant during an initial visit includes checking for

general danger signs.

Guideline Statement:

For danger signs determine whether the child is able to drink or breastfeed; is the infant lethargic or unconscious; does the infant vomit everything; has the infant had convulsions?

Check for the main symptoms: possible bacterial infection, diarrhoea, fever, low weight.

Assess the infant further for signs related to the main symptom, and classify the illness according to the signs and which are present or absent. All assessments and findings must be documented.

3.11.3.2 Assessment, classification and treatment of the young infant with possible bacterial infection is implemented.

Guideline Statement:

The clinical WHO guidelines for assessment of bacterial infections are implemented and followed. Classify the young infant according to the two main categories and select the appropriate treatment and follow-up times.

3.11.3.3 Assessment, classification and treatment of the young infant with diarrhoea is implemented.

Guideline Statement:

The clinical WHO guidelines for assessment of diarrhoea are implemented and followed. Classify the young infant according to the three main categories and select the appropriate treatment and follow-up times.

3.11.3.4 Assessment, classification and treatment of the infant with low weight or feeding problems is implemented.

Guideline Statement:

The clinical WHO guidelines for assessment of nutritional status are implemented and followed. Special attention must be given to breastfeeding. Classify the child according to the main categories and select the appropriate treatment and follow-up times.

3.11.3.5 Assessment, classification and treatment of the infant with HIV/AIDS is implemented.

Guideline Statement:

The clinical WHO guidelines for assessment of HIV status are implemented and followed. Classify the child according to the main categories and select the appropriate treatment and follow-up times.

3.11.3.6 Assessment of the child's immunization status is implemented.

Guideline Statement:

Check vaccinations of the child and determine whether any vaccination is necessary. Specific checks must be in place for reactions to vaccines.

3.11.3.7 Assessment of other problems are documented.

Guideline Statement:

Assessment of other childhood problems must be done according to clinic or hospital clinical guidelines. This includes developmental factors and all other possible symptoms or complaints. Treatment is based on approved MOH protocols and guidelines.

3.11.3.8 A booking system for follow-up visits including an appointment register is in place and monitored.

Guideline Statement:

Mothers and caretakers are given a date and time for a follow-up visit. For each illness and classification, a guideline exists for the number of days to do a follow-up visit after the initial visit.

3.11.3.9 Clinical protocols for each follow-up visit are available and implemented.

Guideline Statement:

Follow-up visits differ from initial visits as the previous illness is tracked. If the patient exhibits any new or different symptoms from the previous illness, the follow-up visit must be treated as an initial visit.

3.11.4 Information as required by the “Integrated Management of Childhood Illness: Treatment of the Sick Infant and Child” protocol is obtained and recorded.

Overview and Standard Intent

Treatment of paediatric patients (for the purpose of IMCI) is related to the classifications made by the nurse during the assessment. Treatment protocols exist for all classifications and are followed rigorously. For severe illness, where the child should be referred to a hospital, treatment may vary depending on whether the risk to transfer is higher than not transferring or the parents do not want to take the child to another facility. In these cases, treatment is often more beneficial when done at the primary facility and general treatment rules of the MOH must be followed.

3.11.4 Criteria

3.11.4.1 Urgent pre-referral treatment is identified and protocols are implemented.

Guideline Statement:

Most severe classifications would also include the fact that the patient be referred to a hospital urgently. Specific protocols for all these illnesses prescribe treatments to be given prior to referral. Documented evidence is required.

3.11.4.2 Treatment for patients that do not need urgent referral is identified and implemented.

Guideline Statement:

The importance of this criterion is that many patients would have more than one classification. A system exists where nurses can select appropriate treatment and eliminate some if the same medication is indicated for two classifications. All treatments must be documented and it must be indicated for which illness it is intended.

3.11.4.3 Medication is available for all IMCI related sicknesses in appropriate dosage forms.

Guideline Statement:

The clinical WHO guidelines provide lists of medication that must be available for treatment. This includes oral medication, intramuscular injections, inhalations, ointments, antibacterial agents, etcetera. Staff must be competent in providing the correct medication and dosage. All treatment must be documented. The same applies for feeding problems and dehydration where ORT (oral rehydration therapy) and other feeds are provided as part of treatment.

3.11.4.4 Medication and protocols are available for all HIV prophylaxis and ART in appropriate dosage forms.

Guideline Statement:

The clinical WHO guidelines provide lists of medication that must be available for treatment. This includes ART, antibacterial agents and medication for secondary infections. Staff must be competent in providing the correct medication and dosage. All treatments must be documented. Special attention is given to side-effects of ART. A specific protocol exists for referring HIV/AIDS paediatric patients to secondary or tertiary institutions.

3.11.4.5 Guidelines for Vaccinations exist and are implemented.

Guideline Statement:

The clinical WHO guidelines for vaccinations are followed and indicated on the child's vaccination chart. Vaccinations must be given according to clinical protocol and the child observed for reactions.

3.11.4.6 Communication and patient/family education takes place and is documented.

Guideline Statement:

It is important to have good communication with the child's mother or caretaker from the beginning of the visit. Using good communication helps to reassure the mother or caretaker that the child will receive good care. A young infant or child who is treated at a clinic needs to continue treatment at home. The success of home treatment depends on how well the nurse communicates with the child's mother or caretaker. She needs to know how to give the treatment. She also needs to understand the importance of the treatment.

- **Ask and Listen** to find out what the child's problems are and what the mother is already doing for the child
- **Praise** the mother for what she has done well
- **Advise** her how to care for her child at home
- **Check** the mother's understanding

Documented evidence is required.

3.11.4.7 A program for teaching the mother or caretaker how to take care of the child at home is implemented.

Guideline Statement:

Included in this criterion is the teaching of the mother or caretaker on preparing medication and ORS, the importance of dosage and timing, looking for reactions and symptoms and when to return to the clinic. Documented evidence is required. Treating local infections, ear infections, and similar illnesses takes practise, and evidence that the mother performed these actions while at the clinic is important. Providing leaflets with pictures to explain treatment protocols is advisable, especially in the language of the mother or caretaker.

3.11.4.8 The mother is counselled on feeding and breastfeeding and follow up visits, and evidence is documented.

Guideline Statement:

Mothers and caretakers need to understand the importance of nutrition and proper feeding. If the mother is breastfeeding, ensure that proper advice is given on the process. If the child is on ORS or another feeding regime, counsel the mother or caretaker on how to prepare and administer the feeds. The mother must be counselled on when to return to the clinic and about her own health. Documented evidence is required.

3.11.4.9 There is a program for follow-up care of the patient which is implemented.

Guideline Statement:

Follow-up visit tables are present in the mother's counsel chart and lists the illness of the child and the recommended time for a return visit. Mothers and caretakers are also counselled on when to return immediately and they receive information on urgent symptoms to look out for. A system is in place to track patients that do not return for a follow-up visit.

3.11.4.10 Follow-up visit procedures are available and followed.

Guideline Statement:

Distinguish between a follow up visit and a child with new or additional symptoms. If additional symptoms exist, the child is assessed as an initial visit. Pure follow up visits are treated according to approved protocol. Children with AIDS or HIV might not respond as expected to some treatments and must be referred to a hospital. Documented evidence is required.

3.12 Prevention and control of infection

Overview

Many illnesses in the IMCI programme are communicable and special care must be taken to implement segregation of patients as far as possible. Children presenting with fever or local infections should, as far as possible, be kept away from other patients.

This standard focuses mainly on prevention of healthcare acquired infections as a result of exposure to infectious patients.

Routine practices and protocols for infection prevention and control required in any healthcare setting for any patient and employee must be in place, rigorously implemented and audited.

This includes all prevention practices such as handwashing, gloving, handling of sharps, management of exposure to blood and body fluids and tissue, processing cleaning and sterilisation of instruments, housekeeping, waste management and universal precautions.

However, in emergency situations such as patients with convulsions, diarrhoea, vomiting and respiratory problems, these practices are often compromised or modified. Acceptable alternative practices under those circumstances must be in place and known to all nurses and staff involved in managing the situation.

Adequate supplies of gloves and protective attire must be available in all designated service areas. As much of the recommended protective attire as possible must be worn and gloves and clothes must be changed whenever they are contaminated.

Adequate education and practical support to mothers and families must be provided to ensure that prevention practices are understood and implemented.

Please note that the prevention of mother to child (PMTCT) HIV infections must be managed according to the Botswana National Programme.

3.12.1 *Procedures for the management of infection prevention and control are implemented and performed as per Botswana policies, protocols and regulations.*

3.12.1 Criteria

3.12.1.1 Routine infection prevention and control (IPC) protocols are available and implemented.

Guideline Statement:

Policies include IPC protocols for all levels of care in all settings as required by the Botswana National Hospital and Clinic Standards. This includes standard precautions, procedural precautions, surgical precautions, catheter care, personal protective equipment and hazardous waste management. Audits must be performed and results documented and analysed.

3.12.1.2 Guidelines for handwashing in the event of emergency stabilisation procedures must be in place.

Guideline Statement:

Before emergency stabilisation procedures, where handwashing may not be possible, for example inserting an IV, PALS or administering drugs, it is critical to at least put on and wear gloves in a sterile way, even if hands are not washed. This should be reported and captured on handwashing audits.

3.12.1.3 Adequate supplies of sterile gloves and protective clothing must be available.

Guideline Statement:

Adequate supplies of gloves and protective clothing must be available based on the level of facility, staff and volume of infectious patients served.

3.12.1.4 Education for prevention of secondary infections and infection control procedures

for home is provided.

Guideline Statement:

This includes education about infectious periods of diseases such as measles, wound care for local infections, general hygiene and food hygiene. Documented evidence in the patient record is required. Patient interviews will be conducted.

3.13 Risk management and safety

Overview

All standards and criteria in the Risk Management Service Element in the Botswana standards apply. The IMCI team at facility and/or unit service level are required to participate actively in incident/event reporting of any minor, major or near-miss incident in a blame free environment. Incident data has to be collected, collated and analysed. Negative trends and patterns must be identified and reported and corrective actions taken.

IMCI programme-specific risks must be identified to minimise risks to the mother, child and siblings and include relevant clinical and non-clinical risks for the programme, for example patient, personnel and visitor related risks, financial and legal risks, medication, consumables, equipment, physical facilities, security and environmental risks, etc.

Although incident reporting should be part of any facility's risk management processes, IMCI programme-specific incident categories for reporting should be determined at national programme level. Data should be collected and aggregated at facility level, collated and analysed at district programme level and reported up to national programme level as part of the programme's M&E framework.

Management of clinical risks in the patient are included in the relevant standards for assessment, classification, treatment and care.

Any serious incident that results in, or could have resulted in serious paediatric morbidity or mortality has to be investigated by a multidisciplinary expert team at district level and full reports provided to programme leaders at district and national level.

3.13.1 *Procedures for the management of risk and safety are implemented and performed as per Botswana policies, protocols and regulations.*

3.13.1 Criteria

3.13.1.1 **An IMCI and ETAT event reporting process and register is available and up to date.**

Guideline Statement:

The IMCI programme-specific reportable events are known to all service providers, reported and documented in a facility register.

3.13.1.2 **IMCI and ETAT programme-specific safety hazards and risks in the environment of care are identified, reported and addressed.**

Guideline Statement:

Safety risks associated with the paediatric environment of care include the following:

- *Safety and security of the child*
- *Identification of patient*
- *Preventing and controlling infection*
- *Communication services*
- *Utility services*
- *Equipment usage*
- *Fire safety*

Documented evidence is required.

3.13.1.3 IMCI and ETAT programme-specific hazards and risks in the provision of care to the patient are identified, reported and monitored.

Guideline Statement:

Risks associated with provision of IMCI care include for example:

- *Appropriate protocols followed according to classification*
- *Accurate treatment of identified classifications*

Documented evidence is required.

3.13.1.4 IMCI and ETAT programme-specific hazards and risks in the administration of medication to the patient are identified, reported and monitored.

Guideline Statement:

Protocols must be in place for managing risks related to all IMCI and emergency medication activities for at least the following aspects:

- *Allergic reactions*
- *Contra-indications*
- *Dosages*
- *Emergency resuscitation medication*

3.13.1.5 IMCI and ETAT programme-specific clinical events resulting from inadequate, unavailable, delayed or sub-standard care to the patient are identified, reported and fully investigated.

Guideline Statement:

Clinical adverse events that result in morbidity or mortality to the patient must be reported immediately and fully investigated as per district and national protocol. Included in this criterion is the monitoring of proper triage and categorizing of patients.

3.14 Quality improvement and management of information

Overview

All standards and criteria in the Quality Management and Improvement Service Element in the Botswana standards apply.

The ETAT and IMCI standards and criteria reflect best current practices required for quality care and the prevention of paediatric morbidity and mortality. These activities provide the framework for the facility and programme leaders to create a culture of continuous quality improvement, providing quality patient care in a safe, well-managed environment.

The IMCI programme must have clear leadership to achieve maximum benefit. Quality improvement activities should be guided by an overall framework implemented throughout the facility.

IMCI programme-specific indicators for reporting information, as determined by National and District programme leaders, must be collected to include the full spectrum of clinical and managerial activities. Data should be collected and aggregated at facility level, collated and analysed at district programme level and reported up to national programme level as part of the programme's M&E framework.

Continuous improvement and the maintenance of improvements already achieved require continuous monitoring, analysis and interpretation of key indicator data followed by appropriate interventions when problems are identified.

The IMCI team should take into account that most clinical care involves more than one profession and personnel not directly involved in the programme. In order for quality improvement activities to be effective, quality improvement interventions should be developed and implemented collaboratively and coordinated between all stakeholders involved in the programme.

3.14.1 Programme-specific quality improvement plans and processes for management of

information are available and implemented.

3.14.1 Criteria

3.14.1.1 Information management processes meet the programme's internal and external information needs.

Guideline Statement:

The facility is provided with/has access to an electronic and/or paper based, integrated standard health information system that enables and assists in collecting and using IMCI specific data. The IMCI team must be able to readily retrieve the data without compromising security and confidentiality.

3.14.1.2 Aggregated data and information is used to monitor and support the IMCI programme's quality improvement activities.

Guideline Statement:

The facility's IMCI team uses aggregate data and information to support operations, performance improvement activities and patient care.

3.14.1.3 Monthly and annual data is checked, graphed, displayed and discussed with personnel and the IMCI team and leaders.

Guideline Statement:

The programme leaders and facility IMCI team participate in the review, evaluation and revision of its annual performance improvement plan. Documented evidence in the form of reports, minutes of meetings and action plans is required.

3.14.1.4 The facility's improvement opportunities are identified and prioritised based on performance data comparisons against district and national target ranges.

Guideline Statement:

Documented evidence in the form of aggregated and analysed data reports, minutes of meetings and action plans is required.

3.14.1.5 The programme plans process and performance improvement activities to encompass multiple disciplines and/or settings from triage, assessment, classification, treatment and referral and/or follow-up stages.

Guideline Statement:

This includes IMCI programme-specific quality improvement initiatives unique to the individual facility in addition to the IMCI programme's specific improvement goals.

3.14.1.6 The facility's IMCI team takes action on improvement opportunities.

Guideline Statement:

Documentation of the interventions taken to improve and evaluate performance on IMCI core measures is required.

3.14.1.7 The facility's Focal Person and programme leaders meet at regular intervals, at least twice a year, to evaluate clinical care practices and protocols and to identify opportunities for performance improvement and progress on implemented improvement projects.

Guideline Statement:

Documented evidence in the form of reports, minutes of meetings and action plans is required.