



East, Central & Southern Africa Health Community

TB Competencies for Pre- Service Nurses in ECSA Region

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ABBREVIATIONS

ACSM	Advocacy Communication and Social Mobilization
AIDS	Acquired Immunodeficiency Syndrome
ART	Anti-Retroviral Therapy
BCG	Bacillus Calmette-Guérin
BSc N	Bachelor of Science in Nursing
CARE	Cooperative for Assistance & Relief Everywhere
CB	Community Based
CBO	Community Based Organization
CBOs	Community Based Organizations
CBTBC	Community Based Tuberculosis Care
CDC	Centers for Disease Control and Prevention
DOTS	Directly Observed Therapy
ECSA	East, Central and Southern Africa
ECSACON	East, Central and Southern Africa College of Nursing
ECSA-HC	East, Central and Southern Africa – Health Community
HBC	High Burden TB Countries
HIV	Human Immunodeficiency Virus
HIV/TB	Human Immunodeficiency Virus/Tuberculosis
HRH	Human Resources for Health
IPC	Infection Prevention and Control
KNCV	KNCV Tuberculosis Foundation
MCH & FP	Maternal and Child Health & Family Planning
MDGs	Millennium Development Goals
MDR-TB	Multi –Drug Resistant Tuberculosis
MOH or MoH	Ministry of Health
MOHCH	Ministry of Health and Child Health
MOHSW	Ministry of Health and Social Welfare
MTB/RIF	Mycobacterium Tuberculosis and Resistance to Rifampicin
NGOs	Non-Governmental Organizations
OPD	Out Patient Department
PLHIV	People Living with Human Immunodeficiency Virus
PLWH	People Living With HIV
PLWHA	People Living with HIV and AIDS
PMDT	Programmatic Management of Drug-Resistant TB
PPE	Personal Protective Equipment
PTB	Pulmonary Tuberculosis
TB	Tuberculosis
TBS	Tanzania Bureau of Statistics
TWG	Technical Working Group
USAID	United States Agency for International Development
WHO	World Health Organization
XDR-TB	Extensively drug-resistant TB

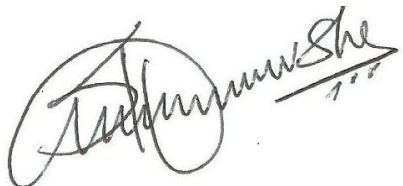
ACKNOWLEDGEMENTS

The TB and DR-TB competences for nurses has been compiled by a Consultant which were reviewed by a Technical Working group consisted of Registrars of Nursing Councils, Nurse Leaders, Nurse Educators and Program officers from non-governmental organizations and faith based organizations in the ECSA region. The competences were then reviewed by TB expert team who scrutinized the competences to completion. This activity would not have been successful without efforts and support from individual people, organizations and partners.

ECSA-HC would like to thank all the donors who made this activity possible by providing financial and technical support which made this activity to be carried out to its completion. Sincere gratitude goes to all partners and collaborators; KNCV Tuberculosis Foundation (KNCV) and the United States Agency for International Development (USAID) who are partners collaborating to ensure that graduate nurses have adequate knowledge, skills and attitude to manage TB patients.

ECSA-HC wishes to sincerely thank the members of the Technical Working Group (TWG) for the critical review of the competences which formed a basis for the curriculum review. We very much appreciate the valuable inputs provided by the members of the ECSA TB Expert Committee for the valuable input in finalization of the TB competences for nurses.

Lastly, but not least, we are indebted to the Consultant Stella M. Mpanda for the compilation and development of the TB competences for nurses in the ECSA region

A handwritten signature in black ink, appearing to read 'Stephen K. Muleshe', with a horizontal line underneath the name.

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The Global Health Bureau, Office of Health, Infectious Disease and Nutrition (HIDN), US Agency for International Development, financially supports this publication through TB CARE I under the terms of Agreement No. AID-OAA-A-10-00020. This publication is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of TB CARE I and do not necessarily reflect the views of USAID or the United States Government.

1.0 INTRODUCTION

Adequate competencies of TB and MDR-TB for nurses has emerged as essential in the integration of TB and Multi-Drug Resistant TB (MDR-TB) into nursing curricula in the ECSA region. The ECSA Health Community has identified a problem within the region, that there is a substantial shortage of health care workers to meet the regional health needs. This shortage is worst in sub-Saharan Africa that has been hardest hit by the dual HIV and TB epidemic. As new public health problems continue to emerge especially in the low income countries, nurses need to play a key role in managing these challenges. In light of the new diagnostics for MDR-TB the number of cases notified will inevitably increase, necessitating the ECSA region to consider a move towards nurse-initiated treatment for MDR-TB. The ECSA Health community also observed that following PMDT missions conducted in the ECSA Member States, a very small fraction of nurses have been trained on management of TB and especially MDR-TB. Most nurses working in the outpatient department were clueless on how to manage MDR-TB. Those who had received on-the-job training of MDR-TB are after a while taken to other departments during the routine departmental shuffles bringing new nurses into the TB clinics; this necessitates fresh training for them which is very expensive in poor resource countries, and delays or alters patient management as the new comers learn how to manage these patients. Henceforth, there is need for strengthening pre-service nurse education by integrating TB and MDR-TB competences into pre-service nursing curricula. In order to achieve this strategy, there is need to identify and compile TB competences which will be integrated in nursing pre-service curricula.

2.0 BACKGROUND

TB is an infectious disease caused by the bacillus *Mycobacterium tuberculosis*. It typically affects the lungs (pulmonary TB) but can affect other parts of the body as well (extra-pulmonary TB). The disease is spread through the air when people who are sick with pulmonary TB expel bacteria, e.g., by coughing. In general, a relatively small proportion of people infected with *Mycobacterium tuberculosis* will develop TB disease; however, the probability of developing TB is much higher among people infected with the human immunodeficiency virus (HIV) (CDC 2012).

The global survey conducted by WHO in 2012, found out that 8.6 million people fell ill with TB including 1.1 million cases among people living with HIV. In 2012, 1.3 million people died from TB, including 320,000 people who were HIV-positive. 410,000 women died from TB including 160,000 who were HIV-positive and 50% of all TB deaths among HIV-positive people were women. TB is one of the top killers of women of reproductive age. An estimated 530 000 children became ill with TB and 74,000 children who were HIV-negative died of TB in 2012 (WHO 2013).

In 2012, an estimated 450,000 people worldwide developed multidrug-resistant TB (MDR-TB) and there were an estimated 170,000 deaths from MDR-TB. The number of people diagnosed with MDR-TB nearly doubled between 2011 and 2012, and reached 94,000 worldwide. This includes 84,000 with confirmed MDR-TB and 10,000 with rifampicin resistance detected by Gene-Xpert MTB/RIF. However, in most countries with a high burden of MDR-TB, less than one in four of the people estimated to have MDR-TB in 2012 were detected.

Just over 77,000 people with MDR-TB were started on second-line treatment in 2012, leaving at least 16,000 detected patients without treatment. Treatment coverage gaps for detected cases were much larger in some countries, especially in the African Region (51% enrolled in treatment), and widened in China, Pakistan and South Africa. At least one case of extensively drug-resistant TB (XDR-TB) has been reported by 92 countries by the end of 2012. On average, an estimated 9.6% of MDR-TB cases have XDR-TB (WHO 2013).

Today, TB remains one of leading causes of death in many poor and developing countries. Africa, home to 12% of the world's population, contains almost a quarter of the TB disease burden, largely due to issues stemming from poverty, the rise of multi-drug resistant (MDR) strains, and the deadly intersection of TB and HIV/AIDS (IHI 2013). Tanzania, with over an estimated 26,000 deaths in 2006, declared TB to be a national public health emergency like Swaziland, Zimbabwe and many other TB high burden African countries.

Achieving universal access to treatment requires a bold and concerted drive on many fronts of TB care. Major efforts are needed to improve treatment success rates among patients with MDR-TB. Globally, 3.7% (2.1-5.2%) of new cases and 20% (13-26%) of previously treated cases are estimated to have MDR-TB. The proportions of new TB cases with MDR-TB at country level ranged from 0% to 32.3%. MDR-TB and mortality in all WHO regions, a much larger proportion of patients in the MDR-TB cohorts die compared with the overall TB patient cohorts (Low S et al 2009). MDR-TB has been described as an independent risk factor for dying even after adjustment for potential confounders (Mathew TA et al 2006).

The standard six-month treatment with first-line anti-TB drugs is not effective for people with MDR-TB and XDR-TB. Instead, they must be treated with drugs that are less efficacious, more toxic and much more costly. The treatment time is up to two years, causes severe side effects and it can be difficult for the patient to maintain adherence. Non-compliance with MDR-TB treatment can lead to XDR-TB for which treatment options are severely limited. The toll on public health from counterfeit drugs is an important but rather underestimated issue. Substandard TB drugs contribute to the development of resistance and increase by this mechanism the incidence of MDR-TB or even XDR-TB. It is possible that many individuals die because the drugs they are consuming are counterfeit (GBCHealth 2011).

Nurses play a pivotal role in TB case management and achieving the following goals:

- All hospitalized patients diagnosed or suspected of TB disease receive continuity of care during the transition from hospital to the outpatient setting without interrupting treatment or essential services
- Disease progression and drug resistance are prevented
- Each patient receives TB care and treatment according to published standards of care
- An integrated, coordinated system of health care allows patients to experience TB care along a continuum rather than in fragments
- Patients complete TB treatment within appropriate time frames and with minimal interruption to lifestyle or work
- Transmission of TB within the community is prevented through effective contact investigations and adequate control activities
- The patient/family/community is educated about TB infection, disease and treatment

- Individuals diagnosed with clinically active or suspected TB are reported according to regulations, and TB control activities are implemented according to standards of the CDC and state, regional, or municipal TB control programs
- Case managers participate in policy development within the healthcare system (at community or state level) that positively affect clinical and TB control outcomes
- Case managers participate in studies to improve case management services and documentation, enhancement of adherence, and TB nursing.

Nurses must also use their professional experience to enhance the care of these patients by listening to patients and significant others with sympathy and understanding to the patient's perception of the problem. Trying to understand the patient's point of view without correcting information or implying that the patient is wrong. A nurse needs to listen and demonstrate a clear understanding of the patient's position. The nurse listens to the explanation of the patient and acknowledges the patient's concerns and the patient's cultural norms and lifestyle.

Also, the nurse's works in an inter-professional collaboration occurs where health professionals from different disciplines work together to identify needs, solve problems, make joint decisions on how best to proceed, and evaluate outcomes collectively. Inter-professional collaboration supports patient-centred care and takes place through teamwork. Team interactions, wider organizational issues, and environmental structures, such as safety, quality, efficiency and effectiveness issues influence this model of care. Health and social care professionals, such as doctors, nurses, physiotherapists and social workers, need to work together effectively to take care of patients effectively. Collaboration does not stop when the patient leaves the hospital: it needs to continue at the community level.

3.0 TB MANAGEMENT NURSING COMPETENCES

The competencies included in this document provide details of the skills, knowledge and attitudes a nurse requires to manage TB patients, contacts and significant others. The competencies provide the detail of how a nurse is expected to practice and capable of doing regarding TB nursing management. These competencies address the knowledge, ability, skills and attitudes a graduate nurse in ECSA region needs to provide quality holistic care for patients, families, and communities impacted by TB. The competencies address eight competency areas and eight core competencies which are then broken into sub-competencies.

Competency Area 1: TB Disease, Pathophysiology, Microbiology, Epidemiology, Sociology and Public Health

Core competency 1

The nurse has the ability to:

Apply knowledge and skills from TB disease pathophysiology, microbiology, epidemiology, social sciences and public health as the basis for the management, control and prevention of TB.

Knowledge Sub-competencies

The nurse has the ability to:

- Explain etiology, pathophysiology, transmission, epidemiology, communicability, risk factors and clinical manifestations of TB disease and infection
- Recognize the contributing factors to develop X/MDR-TB
- Explain vaccines for prevention of TB infection
- Describe the epidemiology of TB and drug resistant TB in patients with and without HIV.
- Analyze the burden of TB diseases globally, regionally and nationally to set up prevention and control strategies
- Analyze the community and social determinants of health
- Describe methods of TB infection prevention and control
- Interpret vital statistics and indicators related to TB
- Recognize relevant national programs which are related to TB prevention, treatment and control in the country
- Interpret the legal, regulatory and administrative framework governing TB management and control.

Skills sub-competencies

Nurse has the ability to:

- Apply principles of epidemiology, and TB disease prevention and control in the management of TB disease and infection
- Apply the principles of drug management to prevent TB drug resistance
- Prevent the spread of disease by using appropriate infection prevention and control measures
- Use vital statistics and indicators related to TB in the management and control of TB
- Collaborate in national programs which are related to TB prevention, treatment and control in country
- Apply legal, regulatory and administrative framework governing TB management and control
- Use technology appropriately
- Perform routine surveillance
- Establish and maintain linkages with key stakeholders for reporting to public health authorities and for receiving descriptive epidemiology and recommendations from TB program data.

Competency Area 2: Community-Based TB Services

Core Competency 2

The nurse has the ability to:

Apply the principles and strategies of community involvement and continuum of care for TB patients and their significant others.

Knowledge sub-competence

The nurse has the ability to:

- Recognize public health goals for TB patient management including promptly initiating and completing effective treatment, prevent transmission and development of drug resistant TB
- Recognize public health systems and processes for prevention, control and management of TB
- Identify populations at high risk for Latent Tuberculosis Infection (LTBI) and TB disease, and the strategies to target these populations
- Analyze local culture and beliefs in relation to TB disease and management
- Recognize the signs, symptoms and risk factors associated with TB and order the correct tests ensuring that as many potential cases are identified as early as possible in the course of the disease
- Demonstrate collaborative approach in the assessment of the current situation and the planning of potential solutions
- Interpret human rights and their effects on the health of individuals and community
- Determine how the services can be optimized, based on the analysis of the various team members' contributions
- Identify the agents/organizations involved in patient care and support in your community and reflect on how their work affects the management and control of TB disease
- Analyze how treatment compliance is achieved in the community with particular focus on the different roles played by all actors involved
- Identify the purpose, procedure and reporting mechanisms for required and standard TB data reporting systems
- Identify and interpret public health laws, regulations, and policies specific to the reporting and notification of TB infection
- Identify and implement interventions that support treatment adherence and overcome barriers.

Skills Sub-competence

The nurse should have the ability to:

- Conduct community assessment to identify available resources
- Collect and interpret data on TB in the community
- Monitor trends in TB disease and participate in TB case finding
- Evaluate outcomes of direct patient care, educational programs and research
- Administer MDR-TB medications in accordance with the protocol.
- Report any adverse drug side-effects.
- Carry out contact tracing and investigate the symptomatic contacts in accordance with national guidelines

- Apply guidelines and case referral processes to transfer information on TB patients who move, as well as facilitate follow-up to ensure TB patients' continuity of care.
- Collaborate with community-based organizations for effective service delivery to targeted communities
- Promote community involvement in TB elimination
- Provide health promotion activities for Individuals, families and communities.
- Assist the patient and her family in planning for treatment follow up and adherence strategies.
- Apply laws and regulations that protect health and ensure safety of the community.
- Conduct field visits to assess environments where TB exposure may have occurred to determine risk of TB transmission
- Monitor and assess TB patients' adherence to TB treatment plan
- Apply measures to prevent acquired drug resistance and help ensure completion of therapy
- Conduct directly observed therapy (DOT) and monitor efficacy and side effects of treatment
- Perform HIV pre and post-test counselling (if certified and/or in accordance with local regulation or policy)
- Perform HIV testing using approved tests and procedures (if certified and/or in accordance with local regulation or policy)
- Provide care to co-infected patients
- Maintain data entry records and use the TB Information Management System and/or other locally developed electronic information system for case and/or contact data management and reporting.

Competency Area 3: TB Health Education and Counselling

Core Competency: 3

The nurse has the ability to:

Apply the principles and strategies of health education and counselling in the provision of nursing care and services to TB patients, Contacts and the community

Knowledge Sub-Competences

The nurse has the ability to:

- Determine the educational needs of health care providers (public and private), community partners, and clients within the jurisdiction concerning the prevention and treatment of TB
- Identify educational materials for persons from diverse cultural, socioeconomic, educational, racial, ethnic and professional backgrounds, and persons of all ages and lifestyles
- Evaluate available health education materials for consistency with state national guidelines and adapts for local use
- Recognizes and addresses misconceptions about TB disease, treatment and prevention in preparing training materials.

Skills Sub-competence

The nurse has the ability to:

- Prepare educational materials for persons from diverse cultural, socioeconomic, educational, racial, ethnic and professional backgrounds, and persons of all ages and lifestyles
- Assess patient's knowledge, beliefs and feelings about TB
- Teach simple measures that may reduce the transmission of infection in the household and the community, such as hand washing and food hygiene.
- Disseminate TB educational materials in a variety of formats (written, video, web-based, instructor-led)
- Teach client, contacts and public on TB management prevention and control
- Teach agencies/organizations the importance of planning for TB risk assessment, health screening, medical evaluation, treatment and case management
- Educate on adherence and the possible implications of involuntary confinement for non-adherence to TB treatment
- Develop indicators for the monitoring and evaluating educational activities
- Counsel the patient on drug compliance, DOT at the health facility or the community taking care of privacy and confidentiality
- Counsel individuals and groups on TB and TB/HIV co-infection
- Demonstrate empathy, genuineness and unconditional positive regard in the counselling relationship
- Teach the patient and significant others on known side effects and answer patients' questions honestly and correctly
- Educate and demonstrate to the patient on correct pill taking and have the patient practice with guidance

- Conduct home visits to follow-up treatment and infection prevention strategies
- Educate the patient on the importance of keeping to scheduled appointment dates and times
- Establish working relationship with community organizations, regulatory groups, and health care communities to promote achievement of TB program goals
- Advocate for and participate in clinical, epidemiological, and operations research.

Competency Area 4: Leadership and Management

Core Competency 4:

The nurse has the ability to:

Apply the principles of leadership and management in the provision of high quality, sensitive and collaborative TB management and control.

Knowledge Sub-competences

The nurse has the ability to:

- Identify leadership and management concepts and principles in regard to TB program
- Recognize different management and leadership styles in regard to TB program
- Determine ways of focusing the team in setting program goals, objectives, specific strategies and auditing outcomes against the goals and objectives.
- Identify resources needed for the TB programs at all levels
- Determine ways of controlling resources in the management of TB services
- Prioritize activities and resources to meet needs of the patient and community.
- Recognize approaches to personnel guidance in meeting patient and community needs
- Recognize strategies for monitoring and evaluation of TB programs at all levels
- Evaluate strategies for organizing TB Management and control
- Analyze approaches for problem solving in the day-to-day delivery of TB services
- Identify training needs for capacity building of nurses in TB care
- Recognize attraction and retention strategies in TB care and control for nurses
- Identify organizational and infrastructural factors that may impact delivery of services or desired outcomes
- Analyze quality assurance systems and processes in the provision of TB services
- Recognize principles and processes of change within the management of TB patients
- Interpret program policies and procedures for stakeholders
- Identify and interpret public health laws, regulations, and policies related to TB care and strategies
- Identify internal and external issues that may affect TB programs at national, regional and district levels
- Recognize the roles and responsibilities of all key players in TB management at hospital, community, national and international level
- Identify team's strengths and weaknesses regarding infection prevention and control, and reflect on avenues for improvement.

Skills Sub-competences

The nurse has the ability to:

- Develop a plan for implementing the TB program which includes goals, process objectives, and implementation steps, strategies and outcomes
- Provide leadership in developing policies that support TB control and prevention activities
- Perform leadership and management tasks and activities, including quality and human resource management, appropriate for level of health facility and TB patient care
- Develop a procurement plan according to services needed
- Develop, implement, monitor, and be accountable for the budget for the defined area(s) of responsibility
- Apply evidence-based findings in developing a TB health policy proposal and explaining the advantages and disadvantages of each option
- Advocate for a review of the legislation in line with the current TB management
- Apply current techniques in decision analysis and health planning regarding TB programs
- Promote national legislation and regulation aimed at reducing public health risk for TB transmission
- Provide for a systematic collection of practice data as part of a program of quality management
- Conduct site visits to regions and districts to observe how national guidelines activities are carried out and how performance standards are met
- Compile program reports in collaboration with other staff and key stakeholders
- Collect data on TB in children in routine reporting and in reviews of national TB programs
- Promote evidence based practice by participating in and involving the nursing staff in evaluative research activities
- Develop mechanisms for monitoring and evaluating the effectiveness and quality of TB program
- Develop clear and concise performance appraisal system, for nurses in TB services
- Act as an effective role model for the profession by creating a positive professional image to the public
- Participate in a program of quality management for the evaluation of practice within the setting in which it occurs
- Monitor quality of own practice and participate in the training of staff on TB updates
- Act as a change agent and manager to advocate for positive changes in the profession of nursing
- Collaborate to address childhood TB across disciplines by providing leadership and guidance
- Develop an evidence base for preventive therapy for children exposed to TB and drug-resistant TB
- Implement policies for early diagnosis and ensure there is an uninterrupted supply of high-quality anti-TB medicines for children.

Competency Area 5: Professional Behaviour in TB Care

Core Competency 5

The nurse has the ability to:

Apply professional knowledge and skills from professional ethics, laws and regulations which govern the provision of sensitive and holistic nursing care to TB patients, contacts and the community at large.

Knowledge Sub-competences

The nurse has the ability to:

- Recognize the historical background of TB infection and disease including its management
- Identify the structure and function of professional and regulatory organizations in the country including laws and legislature on TB management and control
- Recognize the code of ethics, regulations and standards for TB management in the country
- Identify the process of team-building and engaging in professional and inter-professional partnerships
- Recognize the legal requirements of nursing practice, including those of respecting privacy and freedom of information, informed consent and informed choice, recording and reporting, and national data collection requirements
- Recognize the strengths and limitations in skill, knowledge and experience and share or seek counsel, consult with, or refer to, a relevant resource, other TB experts, or other health practitioners
- Recognize their own values and beliefs and not impose them on others.

Skills Sub-competencies

The nurse has the ability to:

- Act consistently in accordance with professional ethics, values and human rights when taking care of TB patients and contacts
- Maintain and update their own knowledge and skills, in order to remain current in practice
- Take responsibility and accountability for clinical decisions and actions
- Demonstrate universal/standard precautions, infection prevention and control strategies
- Demonstrate non-judgmental, non-discriminatory and culturally appropriate manner with all clients in all settings
- Respect the diversity of an individual's culture and customs, regardless of status, ethnic origin or religious belief
- Maintain confidentiality of all information shared by the patient and communicate essential information between/among other health providers or family members only with explicit consent from the patient and compelling need
- Support patients and their significant others to make informed choices about their health and their right to refuse testing or intervention
- Work collaboratively (teamwork) with other health workers to improve the delivery of services to TB patient and the community
- Communicate effectively and professionally with colleagues, students and other care-givers
- Participate in continuing professional development

- Mentor student nurses in the development of their nursing knowledge and skills in clinical settings
- Respect a patient's stated preferences and tailor interventions to fit the patient's needs, circumstances, and health or cultural beliefs
- Listen to and address patient fears, concerns, and challenges in a respectful manner
- Treat the TB patient and significant others with respect and establish a rapport
- Demonstrate sensitivity towards the patient's response to being tested for TB and answer questions correctly
- Develop and sustain positive relationships with TB patients through effective communication skills
- Create a positive atmosphere where the patient feels welcome and confident in the TB service
- Establish and maintain a therapeutic working relationship and rapport with patients, significant others and colleagues
- Evaluate their own nursing practice in relation to professional practice standards and relevant laws and regulations
- Apply ethical principles to the collection, maintenance, use, and dissemination of data according to national policy

Competency Area 6: TB Case Management at Health Facility

Core competence: 6

The nurse has the ability to:

Provide care and coordinate patient care to ensure that the patient's medical and psychosocial needs are met through the appropriate utilization of resources, ensuring that patient completes a course of therapy; both patient and family educated about TB and its treatment; and contacts are investigated, evaluated and treated.

Knowledge Sub-competence

The nurse should have the ability to:

- Recognize the determinants of health as it pertains to TB screening, infection and TB disease
- Recognise modes of TB transmission, the signs and symptoms, complications, diagnostic tests and findings, recommended treatments, and control procedures
- Describe the epidemiology of TB, latent TB infection (LTBI) and drug resistant TB in patients with and without HIV
- Recognize risk factors for acquiring TB infection and the progression of infection to TB disease
- Identify strategies to assist clients and patients in improving treatment adherence
- Identify interventions that support treatment adherence and overcome barriers
- Identify correct treatment regimens for TB, MDR-TB and XDR-TB management
- Determine the importance of medication supervision (e.g., directly observed therapy) and case management for all TB cases
- Recognize and manage all adverse reactions associated with antiretroviral and TB treatment
- Identify current guidelines for the diagnosis, treatment and prevention of TB, including management of MDR-TB, paediatric TB, surgical intervention of TB and TB/HIV co-infection

Skills Sub-competence

The nurse has the ability to:

- Assess, diagnose, plan, implement, monitor and evaluate the care of TB and MDR patients.
- Apply national protocols for notification and tracing of contacts
- Implement universal precautions for infection, prevention and control
- Document and interpret the test results and report
- Apply the national guidelines for clinical management of TB patient with HIV co-infection
- Collaborate with other health care providers to maintain the continuity of care throughout treatment by working with community-based outreach services to track patient care
- Apply national guidelines in the collection, maintenance, use, and dissemination of data for confidentiality of protected medical information
- Conduct education and counselling to patients, contacts and significant others
- Create awareness among public on the availability of TB services
- Apply measures to prevent acquired drug resistance and help ensure the completion of therapy
- Conduct directly observed therapy (DOT) and monitor efficacy and side effects of treatment
- Maintain data entry records and use the TB Information Management System and/or other locally developed electronic information system for case and/or contact data management and reporting
- Prepare reports for program evaluation using documentation from investigations and interviews.

Attitude Sub-competences

The nurse has the ability to:

- Create a good therapeutic environment during the initial contact with the patient to aid compliance
- Demonstrate good communication skills in the management of TB patients
- Maintain patient confidentiality and privacy during the caring process including respecting a patient's choices and beliefs
- Demonstrate self-awareness of their own beliefs, values, and practice limitations
- Demonstrate sensitivity regarding impact of TB diagnosis, infectious disease surveillance, reporting, and contact tracing
- Address stigma and discrimination by counselling TB patients and significant others

Competence Area 7: Risk Management in TB Health Care Settings

Core Competence 7

The nurse has the ability to:

Apply principles and strategies of infection prevention and control in the health care setting to promote safety environment for health care workers, patients and the public regarding TB infection transmission.

Knowledge Sub-competence

The nurse has the ability to:

- Recognise the principles of infection prevention and control in regard to TB infection transmission
- Recognize the risk factors affecting TB transmission in clinical settings
- Recognize occupational risk of TB infections in health care and set to strategize for control
- Define the roles and responsibilities of each person in the facility regarding TB care
- Identify suspected staff/patients with TB symptoms to prevent the spread of infection
- Identify the signs of and reasons for TB outbreaks in clinical settings.

Skills Sub-competence

The nurse has the ability to:

- Apply infection prevention and control measures in the work place
- Assess environmental and personal infection control strategies
- Apply waste management protocols
- Audit waste management practices
- Set strategies for control of TB transmission in the workplace
- Develop a plan that takes into consideration many different internal and external factors contributing to the risk of transmission of infection
- Provide TB testing and counselling at the workplace
- Create awareness to clients and significant others about treatment options, and promote an enabling environment to facilitate treatment completion
- Create awareness among staff on areas which pose an increased risk of TB transmission (e.g. x-ray rooms, or sputum collection areas), for additional precautions which must be observed
- Advocate for a well-equipped workplace with air ventilation and minimize overcrowding to reduce the spread of TB bacteria
- Supervise other health care workers of every cadre (e.g. clinical, paramedical staff, administrative staff and others such as drivers, cleaners, cooks) on the prevention of TB infection transmission.

Competency Area 8: Paediatric Tuberculosis (TB)

Core competency 8:

The nurse has the ability to:

Provide high quality, comprehensive care for children infected with *Mycobacterium Tuberculosis* (paediatric TB)

Knowledge Sub-competence

The nurse has the ability to:

- Identify the transmission of *Mycobacterium Tuberculosis* among children
- Identify risk factors that contribute to TB infection in children
- Recognise typical signs and symptoms of TB in children
- Recognise danger signs, such as respiratory distress or severe malnutrition, and refer to the appropriate level of care
- Determine the best approaches for identifying children who have been exposed to TB
- Recognise management strategies for a child with TB and levels of referral
- Recognise appropriate doses for children receiving anti-TB medicines and regimens
- Identify prevention strategies for paediatric TB

Skills Sub-Competences

The nurse has the ability to:

- Assess, diagnose, plan, implement, monitor and evaluate care of children with TB
- Conduct research on childhood TB to inform policy development and practice.
- Monitor and evaluate the epidemiology of TB and TB/HIV co-infection in paediatrics
- Record and report data systematically - disaggregated by age and sex to capture all TB cases including paediatric TB
- Collaborate with TB services and other childcare services to increase TB case-finding
- Provide Bacillus Calmette-Guérin (BCG) vaccine at birth
- Develop training materials on childhood TB for health care workers
- Implement and evaluate training activities relating to TB in children
- Develop and operationalize clinical guidelines for managing childhood TB
- Provide continuing education on TB, paediatric TB and TB/HIV co-infection to co-workers
- Refer children to next level of care as per protocol
- Provide Isoniazid Preventive Therapy (IPT) to all children below five years of age and all HIV-positive children
- Participate in the quantification and forecasting of TB medicines
- Develop and implement strategies to improve good treatment outcome and reduce undesired treatment outcomes.
- Educate parents with sputum smear-positive pulmonary TB of the need for children under five years of age to be seen at the paediatric clinic for an evaluation
- Perform active TB screening for children in all settings
- Notify cases of paediatric pulmonary TB at the hospital or as according to national reporting system

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