COMPETENCIES FOR ORTHOPAEDIC NURSE SPECIALIST

1. NATURE OF SPECIALISATION

An Orthopaedic Nurse Specialist is a specialist general nurse who has an additional qualification in Orthopaedic Nursing Science and is registered as such with the South African Nursing Council.

It is a specialist field of neuromuscular-skeletal and vascular functioning that focuses on varied clinical or subfields for adult and paediatric conditions, including:

- spinal conditions;
- congenital abnormalities;
- growth disorders;
- neurological conditions;
- soft tissue conditions;
- metabolic disorders;
- tumours;
- trauma;
- rehabilitation; and
- the prevention of orthopaedic morbidity.

2. CONTEXT

An Orthopaedic Nurse Specialist works in:

- orthopaedic outpatient units (including paediatric and adult OPD);
- adult units/wards;
- paediatric units/wards;
- the plaster room;
- trauma emergency care or the casualty department;
Competencies

– Orthopaedic Nurse Specialist: April 2013

3. CONTINUUM

The Orthopaedic Nurse Specialist covers the following areas as sphere of work:

- Trauma/Emergency/OPD
- Technician
- Orthosis (orthopaedic equipment)
- Orthopaedic ward/unit
- Operating theatre
- ICU/high care
- Rehabilitation
- OPD follow-up (assessments, renewal/removal of casts, X-rays)
- Down referral to PHC in chronic orthopaedic conditions (arthritis).

4. COMPETENCY OVERLAPS WITH OTHER NURSING SPECIALISATIONS

Orthopaedic Nursing overlaps with:

- the interpretation of X-rays and the application of tractions/splints/POP;
- the manipulation of fractures and dislocations, deformities and contractures;
- orthopaedic diagnosis in terms of neural-vascular and vascular assessment;
- orthosis (decision-making on appropriate equipment to be used); and
- pre and post orthopaedic surgery care, e.g. total hip replacements, knee replacements and spinal surgery.

The following categories of healthcare workers overlap with Orthopaedic Nursing:

- Peri-operative nurse (operating theatre nursing)
- Critical care nurse
- Paediatric nurse
- Family nurse
- Community health nurse
- Emergency nurse
- Palliative and oncology nurse.

5. DOMAINS AND COMPETENCIES

<table>
<thead>
<tr>
<th>DOMAIN</th>
<th>SUBDOMAIN/CORE COMPETENCY</th>
<th>SPECIFIC COMPETENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOMAIN 1: PROFESSIONAL, ETHICAL &amp; LEGAL PRACTICE</td>
<td>1.1 Professional Practice</td>
<td>1.1.1 Works within the realms of the orthopaedic specialists nurse scope of practice and knowledge base in relation to current orthopaedic trends and advances in practice in order to maintain competency level</td>
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<tr>
<td></td>
<td></td>
<td>1.1.2 Applies the legal provisions governing nursing practice, including the scope of practice, acts and omissions in relation to the orthopaedic nurse</td>
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<td>1.1.3 Upholds the role and integrity of the orthopaedic nursing profession, both in words and action</td>
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<td>1.1.4 Accepts the increased responsibility and accountability of an advanced nurse practitioner</td>
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<td>1.1.5 Takes personal accountability for decisions made and actions taken and/or omissions in the course of care delivery</td>
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<td>1.1.6 Engages and interrogates concerns brought to his/her attention in order to provide safe orthopaedic nursing</td>
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<td>1.1.7 Applies Batho Pele principles and the Patients’ Rights Charter in all interventions with healthcare users and their families</td>
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<td>1.1.8 Observes all ethical considerations of the profession in dealing with orthopaedic-related ethical dilemmas</td>
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<td></td>
<td></td>
<td>1.1.9 Applies knowledge of the Nursing Act and all other related acts in the execution of her/his roles and responsibilities, including the Tissue Act, Medicine and Related Substances Act, Occupational Health</td>
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<td>DOMAIN</td>
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<tr>
<td>SUBDOMAIN/CORE COMPETENCY</td>
<td>SPECIFIC COMPETENCY</td>
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<tr>
<td>and Safety Act, Children’s Act, Social Development Act, Mental Health Act, Basic Conditions of Employment Act, Labour Relations Act, Prison/Correctional Services Act and the Notification of Birth and Death Act</td>
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<tr>
<td><strong>1.2 Ethical Practice</strong></td>
<td>1.2.1 Applies ethical codes of practice in problem situations and ethical decision-making in all aspects of orthopaedic settings</td>
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<td></td>
<td>1.2.2 Demonstrates competence, safe, compassionate and morally-based specialised orthopaedic care provision</td>
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<td></td>
<td>1.2.3 Implements orthopaedic nursing care and maintains ethical codes of the profession for quality assurance while practising within the provision of relevant legislation</td>
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<td></td>
<td>1.2.4 Demonstrates and applies an accurate and comprehensive understanding of ethical theories and principles in the delivery of orthopaedic nursing care</td>
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<td>1.2.5 Upholds the rights of preservation of dignity for patients and colleagues by advocacy in relation to ethical and safe practices</td>
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<td>1.2.6 Applies the knowledge of the scope of practice of a registered nurse in all aspects of orthopaedic settings</td>
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<td></td>
<td>1.2.7 Demonstrates and applies the knowledge of the National Core Standards in the delivery of orthopaedic nursing care</td>
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<tr>
<td><strong>1.3 Legal Practice</strong></td>
<td>1.3.1 Analyses and implements all the relevant national and international legislation in orthopaedic nursing to maintain safe practice</td>
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<tr>
<td></td>
<td>1.3.2 Participates effectively in the implementation of the health policies and advocates for the rights of healthcare users as related to orthopaedic nursing</td>
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</tbody>
</table>

**DOMAIN 2: CLINICAL PRACTICE – CARE PROVISION & MANAGEMENT**

<p>| 2.1 Health Promotion &amp; Prevention | 2.1.1 Plans and provides health information to patients, families and communities on psychosocial aspects of health related to orthopaedic nursing |
| | 2.1.2 Undertakes screenings for orthopaedic deformities, including but not limited to, scoliosis, arthritis, |</p>
<table>
<thead>
<tr>
<th>SUBDOMAIN/CORE COMPETENCY</th>
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<tbody>
<tr>
<td></td>
<td>osteoporosis and congenital deformities</td>
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<tr>
<td>2.1.3</td>
<td>Provides HIV and Aids management and prevention in orthopaedic-related conditions</td>
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<tr>
<td>2.1.4</td>
<td>Plans and provides infection control measures, e.g. isolation of patients with infectious conditions in orthopaedic wards, including but not limited to, Multiple Resistance Staphylococcus Aureus, TB of the bones and Vancomycin Resistant Entercoccus</td>
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<tr>
<td>2.1.5</td>
<td>Makes provisions and interventions for the prevention of neurovascular complications, e.g. compartment syndrome, fat embolism and DVT</td>
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<tr>
<td>2.1.6</td>
<td>Makes provisions and interventions for the prevention of neuromuscular complications, including but not limited to, contractures, paralysis and granulomar formation</td>
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<tr>
<td>2.1.7</td>
<td>Plans and implements psychological interventions for the prevention of psychological effects, e.g. depression, lost self-esteem due to the loss of limbs and phantom pains</td>
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<tr>
<td>2.1.8</td>
<td>Consults patients with orthopaedic-related problems by assessing, collecting and interpreting information and prescribing relevant actions</td>
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<td>2.1.9</td>
<td>Renders an expert role through developing standards and/or a specific care plan through assessing, planning, implementing and evaluating patient care</td>
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<tr>
<td>2.1.10</td>
<td>Promotes health and safety in the workplace by employing and initiating appropriate risk management strategies to prevent incidents</td>
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<td>2.1.11</td>
<td>Ensures that rehabilitation of the orthopaedic patient is effective from the time of the patient’s first contact with the healthcare service until the patient’s reintegration into the community and/or available community resources and giving advice to the patient and family with regard to new adaptive skills</td>
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<tr>
<td>2.1.12</td>
<td>Renders specialised orthopaedic care within a holistic continuum of care</td>
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</table>
## 2.2 Assessment

<table>
<thead>
<tr>
<th>SPECIFIC COMPETENCY</th>
<th>2.2.1</th>
<th>Conducts a total/holistic assessment of the healthcare user</th>
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<tbody>
<tr>
<td></td>
<td>2.2.2</td>
<td>Applies the knowledge of anatomy and physiology (neuromuscular-skeletal system) in identifying orthopaedic dysfunctions</td>
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<td>2.2.3</td>
<td>Applies specialised orthopaedic knowledge in conducting a comprehensive assessment (history taking, observations, physical assessment) of a compromised patient to arrive at a prioritised nursing diagnosis from initial contact until discharge</td>
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<tr>
<td></td>
<td>2.2.4</td>
<td>Uses appropriate tools and instruments in conducting comprehensive assessments, including but not limited to the tuning fork, patella hammer, measuring tape, needle/pin/paper clip, stethoscope and weight scale</td>
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<tr>
<td></td>
<td>2.2.5</td>
<td>Incorporates the interpretation of investigative results to inform the formulation of an orthopaedic nursing diagnosis and to inform the patient management plan</td>
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<td></td>
<td>2.2.6</td>
<td>Applies psychosocial and cultural knowledge and skills to identify factors that contribute to orthopaedic complications</td>
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<td>2.2.7</td>
<td>Assesses a surgically compromised patient physiologically, psychologically and socially to arrive at an orthopaedic nursing intervention</td>
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<td>2.2.8</td>
<td>Identifies special needs of the patient that requires special interventions, including but not limited to sign language, interpreters for language barriers, spiritual and/or dietary needs</td>
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<td></td>
<td>2.2.9</td>
<td>Assesses patients' requirements after discharge, including continuum of healthcare, occupational and home-based care and an appropriate environment that caters for orthopaedic patients</td>
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<td></td>
<td>2.2.10</td>
<td>In emergency situations, assesses and conducts triage according to injuries to determine the nature and urgency of the injuries sustained</td>
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</tbody>
</table>

## 2.3 Care Planning

| SPECIFIC COMPETENCY | 2.3.1 | Plans individualised and specialised nursing care based on the orthopaedic condition and/or surgical |

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Competencies – Orthopaedic Nurse Specialist: April 2013
<table>
<thead>
<tr>
<th>SUBDOMAIN/CORE COMPETENCY</th>
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<tbody>
<tr>
<td></td>
<td>intervention using appropriate tools and technology, including, but not limited to, casts/splint care, spinal care and arthroplasty</td>
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<tr>
<td>2.3.2</td>
<td>Plans nursing interventions for other health problems, including but not limited to, diabetes, TB, oncology, HIV and Aids, based on specific and identified health problems</td>
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<tr>
<td>2.3.3</td>
<td>Takes into consideration ethical codes of the profession as well as safe standards for quality assurance during planning</td>
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<tr>
<td>2.3.4</td>
<td>Draws up a discharge plan that incorporates the socio-cultural background of the patient, considering factors such as diet, occupation, support system and locomotion</td>
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<tr>
<td>2.3.5</td>
<td>Identifies and draws up protocols to inform appropriate orthopaedic nursing interventions</td>
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<td>2.3.6</td>
<td>Compiles and reviews a disaster management plan relevant for orthopaedic settings</td>
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<tr>
<td>2.3.7</td>
<td>Conducts audits on orthopaedic equipment and expendables/consumables to meet the needs of the unit/facility</td>
</tr>
<tr>
<td><strong>2.4 Implementation</strong></td>
<td>2.4.1 Acts as technician in support of the medical and surgical treatment and in the management of orthopaedic conditions in terms of stabilising fractures, including the application and care of plaster casts and appliances; the application and management of traction; care of external fixators and skeletal pins; and the use and management of electronic apparatus in the care of orthopaedic patients</td>
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<tr>
<td></td>
<td>2.4.2 Applies specialised orthopaedic knowledge, skills and technology in the management of fractures in accordance with the legal framework</td>
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<td>2.4.3 Utilises appropriate techniques to prevent complications, e.g. log rolling of spinal patients</td>
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<td></td>
<td>2.4.4 Uses appropriate orthopaedic equipment to provide safe patient care, including but not limited to, an orthopaedic bed, ripple mattress and trapeze</td>
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<td>2.4.5 Determines and uses appropriate weights in the</td>
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<td>SUBDOMAIN/CORE COMPETENCY</td>
<td>SPECIFIC COMPETENCY</td>
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<tr>
<td>management of various tractions to prevent complications</td>
<td>2.4.6 Draws up and implements specific preoperative and postoperative nursing interventions, such as the abduction/adduction of limbs postoperatively</td>
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<tr>
<td>2.4.7 Explains the orthopaedic procedures to the patient preoperatively and makes sure that the patient is aware of the expected and possible adverse outcomes of the specific procedure</td>
<td>2.4.8 Makes appropriate arrangements to obtain special consent (superintendent, family members, etc.) in emergency situations</td>
</tr>
<tr>
<td>2.4.9 Liaises with other healthcare professionals in the management of the orthopaedic patient</td>
<td>2.4.10 Educates and counsels the patient and relatives regarding the patient’s orthopaedic condition for the continuity of care such as paraplegia and amputations</td>
</tr>
<tr>
<td>2.4.11 Applies appropriate orthopaedic nursing interventions to maintain good skin integrity (use of trapeze to relieve pressure on skin, care to back and pressure parts in paralysis)</td>
<td>2.4.12 Utilises, records and monitors appropriate pain management strategies in accordance with regulation and policy</td>
</tr>
<tr>
<td>2.4.13 Applies specialised orthopaedic knowledge of pharmacotherapy (pharmacokinetics and pharmacodynamics) to ensure a safe nursing practice in specialised orthopaedic-related conditions in accordance with the legal framework</td>
<td>2.4.14 Consults and refers patients timeously and appropriately as guided by the referral guidelines</td>
</tr>
<tr>
<td>2.4.15 Acts as risk manager for the patient following trauma, orthopaedic surgery and/or complications making prevention and early recognition essential for avoiding any short or long-term effects</td>
<td>2.4.16 Provides a safe effective orthopaedic environment for the management of efficient patient care</td>
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<tr>
<td>2.4.17 Acts as a mediator, coordinator and gatekeeper</td>
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<tr>
<td>SUBDOMAIN/CORE COMPETENCY</td>
<td>SPECIFIC COMPETENCY</td>
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<tr>
<td>2.4.18</td>
<td>Sets and maintains standards for clinical practice and evaluation through expert orthopaedic knowledge and skills</td>
</tr>
</tbody>
</table>

2.5 Evaluation

<table>
<thead>
<tr>
<th>2.5.1</th>
<th>Analyses and interprets a patient’s parameters through continuous monitoring of the patient’s progress, based on specialised orthopaedic knowledge of the disease process</th>
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</thead>
<tbody>
<tr>
<td>2.5.2</td>
<td>Evaluates if orthopaedic nursing interventions administered to the patient demonstrate the achievement of the expected outcome</td>
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<tr>
<td>2.5.3</td>
<td>Verifies if documentation of orthopaedic patient care is in accordance with the policy of the institution and the legal framework of the orthopaedic nursing practitioner</td>
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<tr>
<td>2.5.4</td>
<td>Monitors the delivery of care in specified orthopaedic fields to maintain best clinical practice</td>
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<tr>
<td>2.5.5</td>
<td>Analyses orthopaedic incident trends in own settings and responds appropriately</td>
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</tbody>
</table>

2.6 Therapeutic Communication & Relationships

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<thead>
<tr>
<th>2.6.1</th>
<th>Communicates with other health professionals, agencies, stakeholders, patients and their families, ensuring that all are working effectively towards the common goal of recovery, rehabilitation and adaptation in an orthopaedic-based setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.6.2</td>
<td>Utilises good communication strategies, both verbal and written, to ensure accurate documentation and record keeping in the best interest of orthopaedic patient care</td>
</tr>
<tr>
<td>2.6.3</td>
<td>Establishes and maintains effective interpersonal relationships with orthopaedic patients, their families and members of the multidisciplinary team</td>
</tr>
<tr>
<td>2.6.4</td>
<td>Identifies and eliminates all factors that might affect communication</td>
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<td>2.6.5</td>
<td>Advocates for the patient where the patient does not have the knowledge or skills to act in her/his own best interest</td>
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<td>SUBDOMAIN/CORE COMPETENCY</td>
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<tr>
<td><strong>DOMAIN 3: QUALITY OF PRACTICE</strong></td>
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<tr>
<td><strong>3.1 Quality Improvement</strong></td>
<td>3.1.1 Initiates, conducts and analyses clinical practice audits to ensure compliance to best practice and standards of orthopaedic care</td>
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<tr>
<td></td>
<td>3.1.2 Influences the development and implementation of standards, practice, guidelines, education and research initiatives related to orthopaedic nursing and nursing in general</td>
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<td>3.1.3 Influences decision-making in medical advisory committees and other relevant committees with specific reference to orthopaedic-related issues</td>
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<tr>
<td><strong>3.2 Continuing Education</strong></td>
<td>3.2.1 Identifies own learning needs for improving practice and enhancing the orthopaedic nursing practice</td>
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<td>3.2.2 Demonstrates commitment to personal and professional development of self and others as well as the responsibility of lifelong learning and the maintenance of the orthopaedic practice</td>
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<td></td>
<td>3.2.3 Provides expert education and information to individuals, groups, families, communities and co-workers in orthopaedic settings</td>
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<td>3.2.4 Maintains continuing professional education through the identification of learning needs and the utilisation of opportunities as guided by healthcare needs, institutional policies and current developments in orthopaedics</td>
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<tr>
<td><strong>DOMAIN 4: MANAGEMENT &amp; LEADERSHIP</strong></td>
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<td></td>
<td>4.1 Manages an orthopaedic unit effectively, utilising management principles/processes and considering specific contextual orthopaedic issues</td>
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<td>4.2 Provides professional support to staff and patients in the orthopaedic settings in which he/she acts as an orthopaedic expert</td>
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<td></td>
<td>4.3 Establishes and maintains effective interpersonal relationships with orthopaedic patients, their families and members of the multidisciplinary team</td>
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<td></td>
<td>4.4 Recognises essential requirements of effective teamwork to achieve desired patient care outcomes</td>
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<tr>
<td>SUBDOMAIN/CORE COMPETENCY</td>
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<td>in the orthopaedic team/setting</td>
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<tr>
<td>4.5</td>
<td>Uses effective organisational, human resource and management skills in the provision of orthopaedic patient care</td>
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<tr>
<td>4.6</td>
<td>Manages resources appropriately to ensure readiness in the delivery of orthopaedic care</td>
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<tr>
<td>4.7</td>
<td>Effectively coordinates the supply of material and human resources, ensuring that best practice guidelines are adhered to in orthopaedic interventions while recognising the scope of economic constraints</td>
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<tr>
<td>4.8</td>
<td>Demonstrates effective leadership skills, acts as a role model and displays effective interpersonal skills based on understanding and mutual respect within an orthopaedic setting</td>
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<td>4.9</td>
<td>Acts as a resource person, educator, role model, advocate and mentor for staff and students in an orthopaedic environment</td>
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<tr>
<td>4.10</td>
<td>Acts as a change agent influencing the development and implementation of standards, practice, guidelines, education and research initiatives as related to the orthopaedic settings</td>
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<tr>
<td>4.11</td>
<td>Recognises essential requirements of effective teamwork to achieve desired patient care outcomes in the orthopaedic setting</td>
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<tr>
<td>4.12</td>
<td>Initiates, conducts and analyses clinical practice audits to ensure compliance to best practice and standards of care</td>
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<tr>
<td>4.13</td>
<td>Demonstrates self motivation and displays effective interpersonal skills based on understanding and mutual respect</td>
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<tr>
<td>4.14</td>
<td>Influences decision-making in medical advisory committees and other relevant committees</td>
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<tr>
<td>4.15</td>
<td>Promotes innovative approaches of care to improve healthcare delivery to orthopaedic patients using research and/or evidence-based practice</td>
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<tr>
<td>4.16</td>
<td>Identifies own learning needs for improving practice</td>
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<td>DOMAIN</td>
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<tr>
<td></td>
<td>and enhancing professional practice</td>
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<td></td>
<td>4.17 Demonstrates a commitment to personal and professional development of self and others as well as the responsibility for lifelong learning and maintenance of practice</td>
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<tr>
<td>DOMAIN 5: RESEARCH</td>
<td>5.1 Plans and initiates active research in own orthopaedic setting</td>
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<td>5.2 Participates in research projects related to orthopaedics</td>
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<td></td>
<td>5.3 Participates and/or conducts research and provides scientific solutions to orthopaedic practice problems</td>
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<td></td>
<td>5.4 Promotes innovative approaches of care to improve healthcare delivery to orthopaedic patients using research and/or evidence-based practice</td>
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<td>5.5 Utilises research findings to effectively influence own practice as an orthopaedic specialist</td>
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<td>5.6 Observes ethical principles in research projects conducted in orthopaedic settings</td>
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<td>5.7 Makes reference to and uses evidence-based practice to improve own orthopaedic practice</td>
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