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A Case for the Nurses Role in Antimicrobial Stewardship

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Agenda

- 1. Review the definition of Antimicrobial Stewardship (AMS)**
- 2. RN Scope of Practice**
- 3. Relate Scope of Practice to AMS**
- 4. Barriers to RN involvement**
- 5. Thinking of the future**



APIC Definition of Antimicrobial Stewardship:

Antimicrobial stewardship is a coordinated program that promotes the appropriate use of antimicrobials (including antibiotics), improves patient outcomes, reduces microbial resistance, and decreases the spread of infections caused by multidrug-resistant organisms.



Summary of Core Elements of Hospital Antibiotic Stewardship Programs

- **Leadership Commitment**
- **Accountability**
- **Drug Expertise**
- **Action**
- **Tracking**
- **Reporting**
- **Education**



AMS Key Players

- Leadership
 - Administrative
 - Physician
 - Pharmacy
- Support
 - Clinicians
 - Infection Prevention
 - Quality Improvement
 - Laboratory
 - Information Technology
 - Nurses



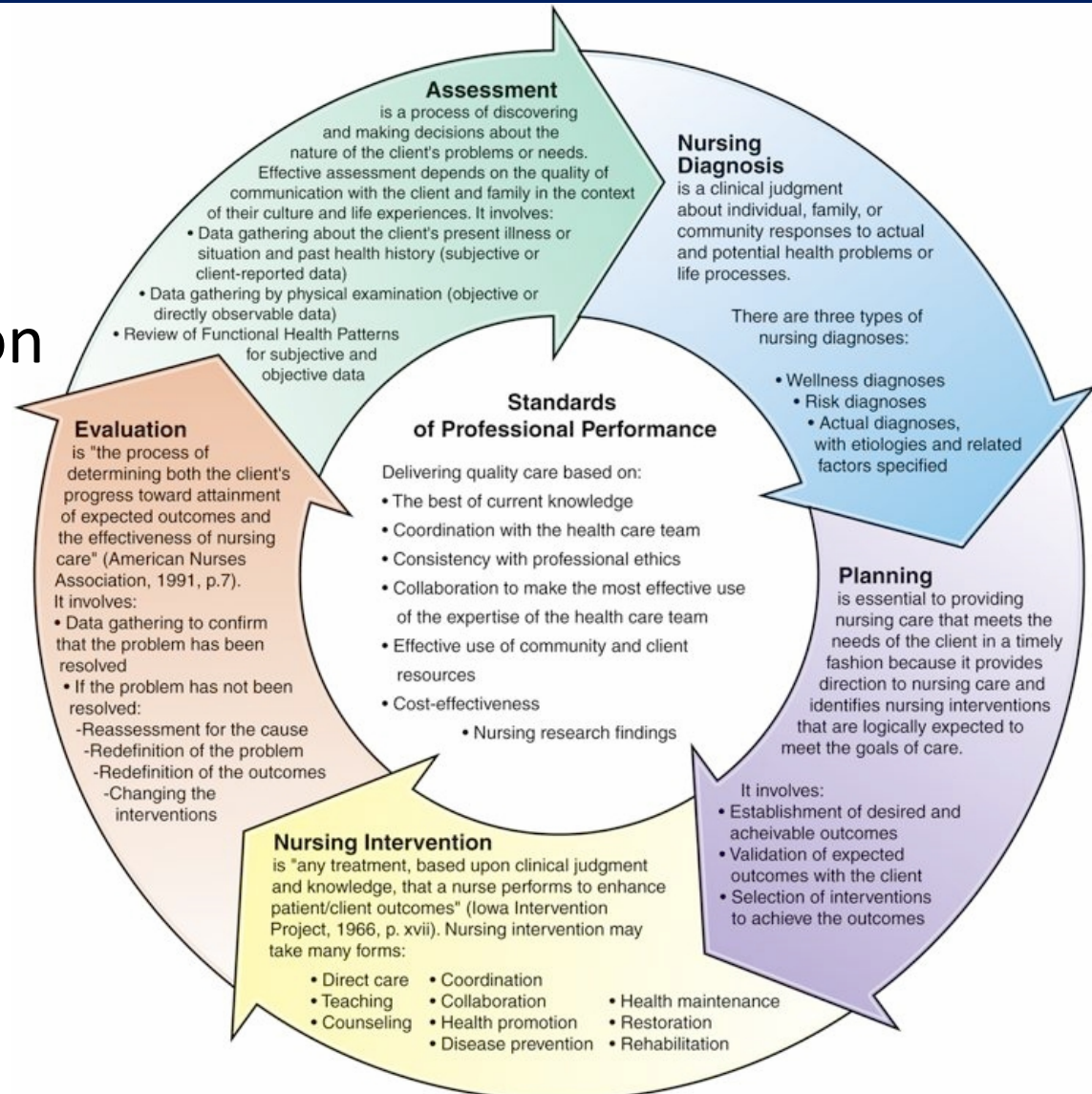
Scope of practice defined in nursing:

- **The Nursing Scope and Standards of Practice** describe the “who,” “what,” “where,” “when,” “why,” and “how” of nursing practice:
- **Who:** Registered Nurses (RN)
- **What:** Nursing is the protection, promotion, and optimization of health and abilities; prevention of illness and injury; facilitation of healing; alleviation of suffering through the diagnosis and treatment of human response; and advocacy in the care of individuals, families, groups, communities, and populations.
- **Where:** Wherever there is a patient in need of care.
- **When:** Whenever there is a need for nursing knowledge, compassion, and expertise.
- **Why:** The profession exists to achieve the most positive patient outcomes in keeping with nursing’s social contract and obligation to society.



Nursing Process

- Assessment
- Diagnosis
- Planning
- Implementation
- Evaluation



Does your facility involve staff nurses in your AMS program?

- 1.Never
- 2.Sometimes
- 3.Always



ANA-CDC Whitepaper, 2017

- Current Antimicrobial Stewardship Program Models rely heavily on Infectious Disease Clinicians, Pharmacists, Microbiologists to fulfill the CDC Core Stewardship Elements
- Potential for nurses to meet these elements within their current role and/or to expand their role to meet the needs of the Antimicrobial Stewardship Program



Whitepaper Suggestions for RN AMS Participation:

- Improve antibiotic use through:
 - Understanding of microbiology, specimen collection and laboratory processes
 - Assess and guide the selection of antibiotics based on microbiology results.
 - Early identification of infection
 - Participation in discussions of antibiotic selection and de-escalation
 - Obtaining detailed allergy history



How are RN's Antimicrobial Stewards? Australia's Framework

- Supporters and influencers of Antimicrobial Stewardship
 - Assessment, monitoring and early response
 - Infection prevention and control
 - Microbiological specimen collection
 - Medication management and safety
 - Transition of care
 - Patient education
 - Collaboration



Engagement of RN's in AMS

Australia's Framework

Box 12.1: Nurse and midwife leadership and engagement

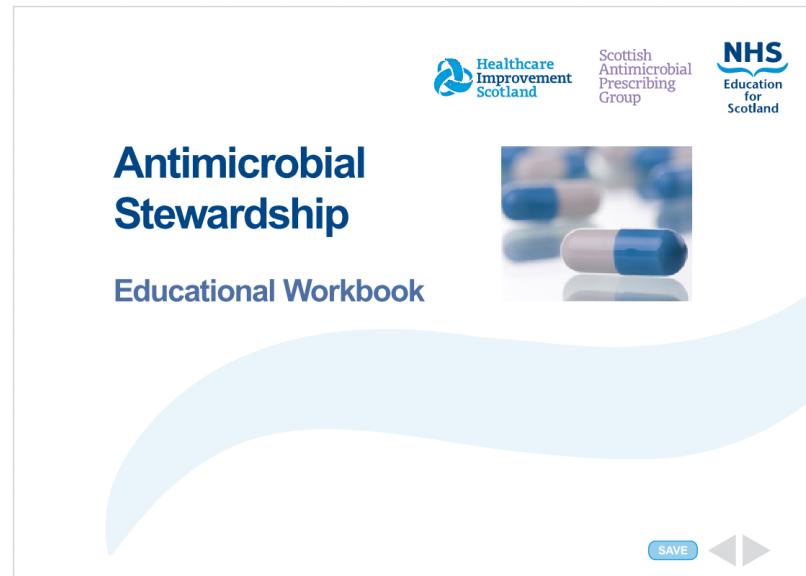
Nursing and midwifery leadership and engagement may involve:

- Promoting antimicrobial stewardship (AMS) as a patient safety activity²
- Working with nurses and midwives to help them appreciate and understand the significance of their role in AMS
- Facilitating nurse and midwife participation in formalised education programs²
- Ensuring that members of the multidisciplinary team and executive are clear about how nurses and midwives will be involved in AMS efforts in the local context
- Promoting nurse and midwife representation on relevant teams and committees responsible for developing antimicrobial policies and guidelines
- Advocating nurses' and midwives' involvement in AMS rounds and other care activities in which individual patient progress and antimicrobial therapy are discussed
- Supporting nurses and midwives in quality improvement activities and projects that aim to improve infection prevention and control or AMS
- Reviewing clinical pathways to include nurse- or midwife-initiated actions (e.g. prompt for intravenous-to-oral switching, flag patients for review by the AMS team)
- Identifying and supporting AMS nurse and midwife champions
- Encouraging nurses and midwives to participate or take the lead in activities for Antibiotic Awareness Week
- Ensuring that audit results are shared with nurses and midwives.

- Emphasis on patient safety
- Increase RN understanding of their role
- Formalized education
- Structure to involve RN's in AMS efforts
- Include RN's:
 - Developing Guidelines
 - Reviewing clinical pathways
 - AMS Rounds/patient discussions
- Encourage RN QI activities
- RN Champions
- Audit results should be shared with RN's

Scotland

- Survey of Scottish nurses published in 2014 was used to guide the development of an interactive online educational program to enhance nurses knowledge of antimicrobial stewardship



United States

- Nurses are enthusiastic about participating in antibiotic stewardship
- Desire for guidelines to reference regarding appropriate culturing practices and antibiotic administration
- Scope of practice concerns
- Need for education about AMS



Knowledge, attitudes, and practices of bedside nursing staff regarding antibiotic stewardship: A cross-sectional study

Table 2
Barriers to nursing participation in ASPs

Potential barriers to nursing participation in ASPs
Time constraints
Physician pushback
Scope of practice concerns
Knowledge of microbiology
Knowledge of antibiotics

ASPs, antibiotic stewardship programs.

Table 3
Potential roles of nursing staff in ASPs identified by survey respondents

Potential bedside nursing roles in ASPs	Responses n = 159 (%)
Patient education about antibiotics and/or infection	150 (94.3)
Cultures prior to antibiotic initiation	148 (93.1)
Timely initiation of antibiotics if indicated	145 (91.2)
Allergy history assessment	138 (86.8)
Patient admission and triage (eg, reviewing flags for multidrug resistant bacteria colonization and placing in isolation when appropriate)	135 (84.9)
Reviewing stop dates for antibiotics	114 (71.7)
Ensuring antibiotic durations and indications are recorded in discharge paperwork	113 (71.1)
Reviewing final cultures and discussing antibiotic de-escalation with treating physician	97 (61.0)
Daily progress monitoring with assessment of need for continued need for antibiotic therapy	96 (60.4)
Medication reconciliation	94 (59.1)
Reviewing preliminary culture results and discussing antibiotic de-escalation with treating physician	88 (55.4)
IV to PO conversion of antibiotics	82 (51.6)
Antibiotic dosing	56 (35.4)

ASPs, antibiotic stewardship programs; IV, intravenous; PO, by mouth.



Applying these findings

- Nursing Education
- Increase awareness of AMS activities at your facility
- Emphasize the work that is already being done by nurses to promote AMS
- Identify RN Champions for each unit to lead efforts
- Include RN's in the development of guidelines and clinical pathways



Nursing education

- Microbiology
 - Obtaining cultures
 - Reviewing culture results
 - Multi-drug resistant organisms
 - Applying results to antimicrobial selection
- Antibiotics
 - Anti-infective properties
 - Appropriate use
 - IV to PO equivalents
 - De-escalation



Increase awareness of AMS activities at your facility

- Meet staff nurses and unit managers to discuss AMS activities
- Encourage engagement and communication of staff with the AMS team
- Invite staff to attend meetings, assist with guideline development, clinical pathways



Emphasize the work that is already being done by nurses to promote AMS

- Nurses are antimicrobial stewards- emphasizing this fact is key in engaging staff
 - Assessing for Infections
 - Adherence to Infection Prevention Policies
 - Bundled Care to Prevent Infections
 - Completing Allergy Assessments
 - Antibiotic Administration



Identify RN Champions for each unit to lead efforts

- RN Champions can influence the culture of the nursing unit by increasing awareness and increasing knowledge of best practices.
- Possible Role of RN Champion:
 - Include in AMS meetings
 - Assist in communication between the AMS team and staff nurses
 - Education of staff nurses regarding new policies, guidelines or clinical pathways related to AMS.



Include RN's in the development of guidelines and clinical pathways

- RN's have a unique perspective and ability to identify facilitators and barriers to implementation of new interventions
- Collaboration with staff RN's to identify concerns specific to their patient population will help improve adherence to these new practices



Interventions that nurses can influence through guidelines and education

- Community-acquired pneumonia
- Urinary tract infections
- Skin and soft tissue infections
- Empiric coverage of MRSA infections
- Clostridium difficile infections
- Treatment of culture proven invasive infections



Expanding our Antimicrobial Stewardship Team

- With the right education and support, Registered Nurses have the potential to be active and productive members of the Antimicrobial Stewardship Team.
 - Education
 - Increased Awareness
 - RN Champions
 - Collaboration
 - Administrative Support



Nurses are Antibiotic Stewards

Actions we take to support appropriate antibiotic use:



You Assess for infection

- Identify sepsis early
- Obtain appropriate cultures before antimicrobials if possible

You Adhere to Infection Prevention Policies

- Hand Hygiene and Standard Precautions every time
- Isolation Precautions when indicated

You do Bundled Care

- Central Lines • Foleys • Ventilators
- Preventing device infections reduces antimicrobial use

You Complete the Allergy Assessment

- True allergy?
- Complete documentation

Every time antibiotics are needed:

Right
Antibiotic

Right
Dose

Right
Reason

Patient
Education

