

European Nurse Curriculum **VACCINATION**



VERSION 1 - DECEMBER 2024
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PRESIDENTIAL INTRODUCTION

In today's complex healthcare landscape, the role of nurses is more vital than ever. While each EU and EEA country manages its own public health policies, the growing global health threats call for a unified approach to nursing education across Europe.

To address this, the European Specialty Nurses Organization (ESNO) has developed a complementary post-graduate curriculum standard aimed at enhancing the knowledge and practical skills of nurses continent-wide. Focused on critical areas like respiratory illnesses, influenza, RSV, and COVID-19, this curriculum equips nurses with the expertise needed to provide high-quality care, mitigate seasonal outbreaks, and support public health efforts.


This standard also contributes to higher self-esteem among nurses and motivates them to participate fully in the European vaccination program. By standardizing nursing education across EU/EEA nations, the initiative seeks to create a workforce that is not only skilled but also adaptable and resilient, capable of leading in crises and ensuring the sustainability of healthcare systems.

Launching this curriculum represents an investment in the health and future of Europe. It will enhance the credibility and effectiveness of healthcare professionals, promote inclusivity, and set new standards for public health preparedness.

“Let us commit to building a healthier and safer Europe through education, collaboration, and shared expertise”.

Dr. Adriano Friganovic
ESNO president





“The purpose of this curriculum is to enrich and empower nurses with the knowledge, skills, and confidence to take a leading role in vaccination, serving European public health with expertise and trust”.

By providing a structured and standardised approach, it enhances competencies in immunisation practices, patient education, and evidence-based decision-making, ensuring nurses are equipped to drive vaccination efforts, combat misinformation and strengthen community protection.

BACKGROUND

Each EU/EEA country is responsible for its own national public health policy, including its national immunization program and vaccination schedule. However, the significant variation in education, training, information sheets, and other materials related to vaccination between nations and even within countries has led to fragmentation. This fragmentation does not align with the goal of a unified European approach, where there is a common understanding and a single, cohesive voice.

A harmonized approach is required to address this issue. The ESNO recognized the need to create a standardized post-graduate curriculum for nurses, which would contribute to a broader and more harmonized understanding of national vaccination programs and enhance the practical aspects of vaccination

This includes knowledge of infectious diseases, epidemiology, and their characteristics. Although the course focuses on the vaccination practice, understanding the background and context is essential for effective communication with professionals and for competency building. This curriculum has been initiated by the European Specialty Nurses Organization (ESNO) in response to the increasing health threats in Europe. It reflects the organization's responsibility to provide a standard education and competence profice aimed at developing a prepared nursing workforce to address current situations and future outbreaks.

This curriculum includes the critical aspects of these respiratory illnesses, which are pivotal in contemporary public health. Understanding Influenza is essential for nurses as it remains a significant cause of seasonal respiratory illness. This section will cover the latest insights into influenza viruses, vaccine strategies, and management practices to effectively prevent and treat flu cases, reducing seasonal outbreaks and their impact on patient health. Following

the Respiratory Syncytial Virus (RSV) poses a considerable challenge, especially for infants, young children, and vulnerable adults. We will delve into the pathophysiology of RSV, its impact on various populations, and current approaches to prevention and management. Emphasis will be placed on recognizing symptoms early and employing preventive measures to safeguard at-risk groups. And last the COVID-19 has profoundly affected global health, and ongoing understanding and adaptation are crucial. This module will focus on the latest developments in COVID-19, including virus variants, vaccination efforts, and management strategies. You will gain knowledge on how to navigate the complexities of COVID-19 care, enhance patient communication, and contribute to public health efforts effectively.

With adoption and recognition of the curriculum, nurses are equipped with comprehensive knowledge and practical skills to address these critical respiratory infections, enhancing your ability to provide high-quality care and contribute to broader public health initiatives.

This curriculum also aims to set a standard within the European context and promote national adoption based on national vaccination programs, guidelines, and protocols. It offers additional benefits for health systems by ensuring professionals have the necessary competencies in knowledge, skills, and a positive attitude toward vaccination. It also enhances their credibility within health systems and supports the sustainability of the healthcare workforce's preparedness. By including professionals from the nursing domain, the curriculum addresses inclusivity and complements the full spectrum of health professionals beyond the medical, microbiology, and epidemiology fields. Additionally, it provides nurses with European cross-border competency, offering opportunities for engagement in education, leadership, management, and policy.

This curriculum provided a guideline to included aspects to embed them in courses and trainings for maximum impact and contrubution based on levels of Provicient, Experianced and Advanced.

This version is a baseline document to devellope further over the years to come, to include new aspects to include in order to meet requirments of prepardness.

DEVELOPMENT PLAN FOR NURSES' VACCINATION CURRICULUM

PHASE 1: EXPLORATION AND NETWORK BUILDING

Objectives

Identify and explore key themes related to vaccination. Establish a network of subject matter experts in vaccination and nursing education. Create initial curriculum outlines, highlighting key themes to be included.

PHASE 2: CREATION OF LEARNING LISTS

1. Define Learning Outcomes

Goal: Develop specific learning outcomes that detail what nurses should know, understand, and be able to do upon completion of the curriculum. Identify the practical skills and competencies nurses need to effectively administer vaccinations.

Activities: Collaborate with experts to translate curriculum themes into measurable learning outcomes. Ensure learning outcomes are aligned with national and international standards for nursing education. Review and refine outcomes through feedback from stakeholders (experts, nurses, educators). Work with clinical experts to list key vaccination-related skills (e.g., vaccine administration, patient communication, managing adverse reactions). Categorize competencies into basic, intermediate, and advanced levels to support progressive learning. Design practical assessments to measure competency attainment.

2. Design of Learning Content

Goal: Develop comprehensive learning materials that support the achievement of the identified learning outcomes and competencies.

Activities: Curate educational resources (lectures, readings, case studies, videos) that cover key themes like immunology, vaccine types, cold chain management, etc. Create interactive learning modules and simulation exercises to enhance practical skills. Establish a feedback loop with educators to ensure content relevance and quality.

3. 1. Pilot and Feedback (October 2024 Launch)

Goal: Launch the first version of the curriculum and gather feedback for iterative improvement.

Activities: Pilot the curriculum in selected nursing schools or continuing education programs. Collect feedback from nurses, instructors, and healthcare institutions on the curriculum's effectiveness. Make necessary adjustments based on real-world application and feedback.

PHASE 3: DETAILED LEARNING OUTCOMES DEVELOPMENT (YEAR 2025)

1. Refinement and Expansion of Learning Outcomes

Goal: Deepen and expand the curriculum's learning outcomes based on initial feedback and evolving best practices. Develop more specialized and advanced competencies tailored to specific contexts (e.g., emergency vaccination campaigns, high-risk populations).

Activities: Conduct a thorough review of feedback from the first year of implementation. Update and expand learning outcomes to reflect changes in vaccination guidelines, emerging diseases, and new vaccines. Introduce advanced learning outcomes for more experienced nurses or specialized roles (e.g., vaccine program managers). Collaborate with experts to identify advanced skills and create corresponding assessments. Implement practical workshops, simulations, and field experiences for competency development. Establish criteria for continuous competency assessment and professional development.

2. Curriculum Evaluation and Adjustment

Goal: Ensure the curriculum remains current, evidence-based, and responsive to the needs of the nursing workforce. Fully integrate the competency levels into the curriculum and establish a system for ongoing improvement.

Activities: Conduct a formal evaluation of the curriculum's impact on nursing practice. Adjust learning outcomes and competencies as needed to address gaps or emerging needs. Update learning materials and methodologies to keep pace with technological and medical advances. Roll out the differentiated curriculum across all participating institutions. Provide ongoing support and professional development opportunities for instructors. Set up a continuous feedback and improvement mechanism to ensure the curriculum evolves with the field of vaccination.

3. Final Review, Accreditation and launch

Goal: Ensure the curriculum meets all regulatory and accreditation requirements.

Activities: Conduct a comprehensive review with accreditation bodies and stakeholders. Make final adjustments to meet regulatory standards. Obtain formal accreditation and promote the curriculum within the nursing community.

TIMELINE SUMMARY

October 2024: Launch the first version with outlines learning outcomes, practical competencies, learning content and launch publicly.

Year 2 (2025): Refine and expand learning outcomes and competencies based on feedback and evolving standards, finalize the curriculum, and ensure continuous improvement and accreditation.

TRANSLATIONS

ESNO strives to make this curriculum accessible by offering translations into the preferred languages of European countries, based on specific requests. ESNO provides the complete script to translators, who are encouraged to incorporate relevant national and cultural aspects to ensure the translation aligns with local contexts. All translated version will be published on the ESNO website. We also allow a recommendation of the curriculum by the national organization of course.

Chapter B

ABOUT THE CURRICULUM

DESCRIPTION

This curriculum is designed for professionals in the nursing and care domain, to raise their knowledge and experience in vaccination to become competent, confident and prepared. The curriculum covers the fundamental on immunology, current guidelines, practical vaccination techniques, as well as the ethical and legal aspects of vaccination work. The curriculum proposed both theoretical and practical aspects, aiming to equip participants with the tools to perform vaccinations safely and effectively.

CURRICULUM OBJECTIVES

With adopting and recognition of the curriculum, participants will be able to:

- Understand the basic immunological principles behind vaccinations.
- Be familiar with and apply current national and international vaccination guidelines.
- Perform vaccinations safely and correctly.
- Provide accurate advice and information to patients about vaccinations.
- Identify and manage common side effects and complications post-vaccination.
- For advanced level:
 - Full management in vaccination centers
 - Vaccination prescribing

TARGET AUDIENCE

Within the nursing domain:

- All nurses at all field in health, specialties and health domains, as vaccination is core competence for health professionals with professionals in the medical and pharmacy domain.
- Specific, for nurses professionals working with or planning to work with vaccinations in primary community care level, school health services, or other healthcare settings.

Non nursing professionals:

- All nurses at all field in health, specialties and health domains, as vaccination is core competence for health professionals with professionals in the medical and pharmacy domain.
- We also aim to include nationals and European health policy makers and regulators in this initiative, ensuring they are aware of this curriculum. This is crucial to avoid claims that there is a lack of nurse involvement or participation, while also emphasising that this curriculum holds recognized status within European nurse organizations networks, and the broader community. This awareness will enable them to communicate effectively with officials, providing them with the tools needed to offer guidance and direction within the nursing and care profession.

EXPECTED DURATION OF COURSES BASED ON THE CURRICULUM

Proficient:

A proficient nurse in the context of vaccination has a solid understanding of vaccination procedures and protocols. They are skilled in administering vaccines, ensuring proper dosage, handling vaccine storage, and maintaining accurate records. These nurses can independently carry out vaccinations and educate patients on basic vaccine information, ensuring adherence to guidelines. However, they may still need guidance when faced with complex vaccination scenarios or unusual cases.

- 24 hours study course
- The course will be composed on the marked essentials on the curriculum.
- The certificate has a two year value and required a bi-annual update
- For the completed course, a certificate will be provided.

Experienced:

An experienced nurse has extensive practical experience in vaccination, having administered vaccines across a variety of patient populations and settings. They are adept at managing more complex vaccination cases, such as dealing with patients who have allergies or other contraindications, and can handle adverse reactions effectively. Experienced nurses often take on mentoring roles, guiding less experienced colleagues, and may be involved in planning and coordinating vaccination programs within their healthcare facility.

- 48 hours study course
- The course will be composed on the marked essentials-plus on the curriculum.
- The certificate has a two year value and required an annual online update
- Annual update
- Certificate and

Advanced:

An advanced nurse in the field of vaccination is an expert who not only excels in the technical aspects of vaccination but also plays a significant role in the management and strategic planning of vaccination programs. These nurses are involved in developing vaccination policies, training other healthcare professionals, and overseeing large-scale immunization efforts. They may conduct research, contribute to policy-making at regional or national levels, and ensure that vaccination programs are aligned with public health goals. Their expertise allows them to manage complex situations, lead initiatives, and influence the broader direction of vaccination efforts in their organization or community.

- 80 hours study course of the full programme
- The certificate has a one year value and required an annual update
- Annual update courses
- The certificate has a bi-annual registration with proven credential on status of education and in combination with experience.
- Certificate and Formal European recognised

Chapter C
MODULES

MODULE I

Introduction to Vaccines

This chapter provides foundational knowledge on vaccines, categorized into three distinct sections: Level of Knowledge, Level of Competencies, and Level of Outcomes. It aims to equip nurses with a comprehensive understanding of vaccines, their history, mechanisms, and types, fostering a holistic approach to their role in vaccination.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
1 Introduction to Microbiology and Virology		
<ul style="list-style-type: none"> • Understand the basic structure and function of microorganisms, including bacteria, viruses, fungi, and parasites. • Recognize the differences between pathogens and non-pathogenic microorganisms. • Learn about viral life cycles, replication, and mechanisms of infection. 	<ul style="list-style-type: none"> • Analyze the relationship between microorganisms and infectious diseases. • Identify the role of specific viruses in vaccine-preventable diseases. • Interpret microbiological data relevant to vaccination. 	<ul style="list-style-type: none"> • Ability to explain the role of microbiology and virology in vaccine development. • Demonstrate the ability to educate patients on microorganisms and their impact on health.
2 Introduction to Immunology		
<ul style="list-style-type: none"> • Familiarize with the immune system components: innate and adaptive immunity. • Understand antigen-antibody interactions, immune memory, and immune response mechanisms. • Learn how immunological principles apply to vaccines. 	<ul style="list-style-type: none"> • Correlate immune responses with vaccine efficacy. • Identify situations where immune system considerations affect vaccination strategies (e.g., immunosuppression). • Explain immunological terms in simple language to patients. 	<ul style="list-style-type: none"> • Ability to apply immunological knowledge to assess vaccination needs and patient-specific factors. • Competently address common patient questions about immunity and vaccines.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
3 History and Development of Vaccines		
<ul style="list-style-type: none"> • Study the historical milestones in vaccine development. • Learn about key figures in vaccine history, such as Edward Jenner and Louis Pasteur. • Understand the evolution of vaccine technology over time. 	<ul style="list-style-type: none"> • Discuss the historical context of vaccines and their impact on global health. • Analyze case studies of past vaccine campaigns and their outcomes. • Advocate for vaccination using historical success stories. 	<ul style="list-style-type: none"> • Develop a narrative for vaccine advocacy based on historical evidence. • Demonstrate confidence in promoting vaccines by drawing on historical success.
4 How Vaccines Work		
<ul style="list-style-type: none"> • Learn the basic mechanism of vaccines in stimulating the immune system. • Understand concepts like herd immunity, antigen presentation, and immune memory. • Study vaccine-preventable diseases and their epidemiology. 	<ul style="list-style-type: none"> • Explain to patients how vaccines provide protection against diseases. • Interpret vaccine effectiveness data in different populations. • Monitor for and address misconceptions about vaccine mechanisms. 	<ul style="list-style-type: none"> • Effectively educate patients and communities on the science of vaccines. • Contribute to increased vaccine uptake through clear communication of benefits.
5 Types of Vaccines		
<ul style="list-style-type: none"> • Differentiate between live-attenuated, inactivated, subunit, mRNA, vector-based, and toxoid vaccines. • Understand the advantages and limitations of each vaccine type. • Study the development and approval process of vaccines. 	<ul style="list-style-type: none"> • Match vaccine types to the appropriate patient population or disease context. • Address patient concerns about specific vaccine types. • Demonstrate safe handling and administration practices for different vaccine types. 	<ul style="list-style-type: none"> • Ability to recommend appropriate vaccine types based on individual patient needs. • Confidently discuss the role of various vaccine types combating global health challenges.

The roles of vaccines in public health

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
6 Planning for the Future: Epidemic and Pandemic Preparedness		
<ul style="list-style-type: none"> • Endemic diseases • Herd immunity • Travel vaccination • Epidemics and pandemics 		
7 Learning from History - Historic and Current Infection Outbreaks		
<ul style="list-style-type: none"> • Nurses will understand the impact of historic and modern infectious disease outbreaks, analyze lessons learned from past pandemics, recognize patterns in disease emergence, and apply infection prevention strategies to mitigate future outbreaks effectively. 	<ul style="list-style-type: none"> • Nurses will critically assess outbreak responses, apply infection control measures based on historical and current evidence, contribute to outbreak preparedness, engage in public health education, and support vaccination and surveillance efforts to prevent future epidemics. 	<ul style="list-style-type: none"> • This module covers major historic outbreaks (e.g., Spanish Flu, smallpox, polio, HIV/AIDS, SARS, Ebola, COVID-19), their global impact, public health responses, vaccination developments, lessons learned, emerging infectious threats, and the role of nurses in outbreak management and
8 Planning for the Future: Infection Monitoring		
<ul style="list-style-type: none"> • Nurses will understand the principles of infection surveillance, recognize the importance of real-time monitoring in outbreak prevention, interpret epidemiological data, and contribute to early detection and response strategies for emerging infectious threats. 	<ul style="list-style-type: none"> • Nurses will apply infection monitoring protocols, report and analyze surveillance data, recognize early warning signs of outbreaks, implement preventive measures, educate communities on infection risks, and collaborate with public health agencies for timely interventions. 	<ul style="list-style-type: none"> • This module covers infection surveillance systems, epidemiological data collection, antimicrobial resistance tracking, early outbreak warning mechanisms, digital health tools in infection monitoring, policy frameworks, and the role of nurses in global health security and preparedness.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
9 Zoonoses and Spill-Over Principles		
<ul style="list-style-type: none"> Nurses will understand zoonotic disease transmission, identify risk factors for spillover events, recognize the role of human-animal-environment interactions in emerging infections, and apply prevention strategies to reduce outbreaks and public health risks. 	<ul style="list-style-type: none"> Nurses will assess risk factors for zoonotic disease exposure, educate patients on infection prevention, contribute to early detection and reporting of spillover events, collaborate with veterinary and public health sectors, and implement biosafety measures in clinical settings. 	<ul style="list-style-type: none"> This module covers zoonotic disease examples (e.g., rabies, avian influenza, Ebola, COVID-19), mechanisms of spillover, human-wildlife interactions, climate change influences, One Health approaches, surveillance systems, vaccination strategies, and outbreak preparedness.
10 Impact of Zoonoses in Human Health (The Global Expansion of H5N1 Highly Pathogenic Avian Influenza)		
<ul style="list-style-type: none"> Nurses will understand the impact of zoonotic diseases on global health, recognize the transmission dynamics of H5N1 avian influenza, identify at-risk populations, and apply infection prevention strategies to mitigate the spread and potential spillover to humans. 	<ul style="list-style-type: none"> Nurses will assess and educate patients on zoonotic risks, implement infection control measures in healthcare and agricultural settings, participate in early detection and reporting, support vaccination initiatives, and collaborate in One Health approaches to outbreak response. 	<ul style="list-style-type: none"> This module covers H5N1 epidemiology, transmission pathways from birds to humans, global expansion trends, risk factors for spillover, public health and biosecurity measures, the role of vaccination in poultry and humans, and outbreak preparedness strategies.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
11 The impact of Climate Change and Future Outbreaks		
<ul style="list-style-type: none"> Nurses will understand the link between climate change and infectious disease outbreaks, recognize how environmental shifts influence pathogen spread, identify vulnerable populations, and implement preventive strategies to mitigate future health threats. 	<ul style="list-style-type: none"> Nurses will assess climate-related disease risks, contribute to public health surveillance, educate communities on climate-adaptive health measures, apply infection prevention strategies in climate-affected regions, and advocate for policies addressing environmental determinants of health. 	<ul style="list-style-type: none"> This module covers climate change impacts on vector-borne and zoonotic diseases (e.g., malaria, dengue, Lyme disease), extreme weather-related outbreaks, antimicrobial resistance trends, the role of nurses in climate-resilient healthcare, and global preparedness initiatives.
12 Vaccine Schedules and Recommendations		
<ul style="list-style-type: none"> Nurses will understand the principles of vaccine scheduling, recognize variations in national immunization programs, adapt to country-specific recommendations, ensure adherence to updated guidelines, and provide accurate patient education on vaccination timing and catch-up schedules. 	<ul style="list-style-type: none"> Nurses will interpret and apply national and international vaccine schedules, assess patient immunization status, manage delayed or incomplete vaccinations, provide guidance on booster doses, document accurately, and educate patients on the importance of timely immunization. 	<ul style="list-style-type: none"> This module covers vaccine schedule variations across countries, WHO and national immunization guidelines, paediatric and adult immunization programs, catch-up vaccination strategies, travel vaccination requirements, vaccine contraindications, and communication strategies for improving adherence.
13 Principles of ‘Life-Course-Immunisation’		
<ul style="list-style-type: none"> Nurses will understand the concept of life-course immunisation, recognize the importance of vaccines beyond childhood, identify key immunisation needs at different life stages, and apply strategies to improve vaccination uptake across all age groups. 	<ul style="list-style-type: none"> Nurses will assess immunisation needs based on age, health status, and risk factors, provide evidence-based recommendations, administer vaccines per life-stage guidelines, promote vaccination awareness, and support long-term immunisation adherence. 	<ul style="list-style-type: none"> This module covers the continuum of immunisation from infancy to old age, routine and booster vaccinations, maternal immunisation, occupational and travel vaccines, immunisation for immunocompromised individuals, strategies to reduce vaccine-preventable diseases, and public health policies promoting life-course vaccination.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
14 Keeping Informed on Future Monitoring and Response		
<ul style="list-style-type: none"> • Nurses will understand the importance of continuous disease surveillance, recognize emerging infectious threats, interpret public health alerts, and apply evidence-based responses to protect individuals and communities from future outbreaks. 	<ul style="list-style-type: none"> • Nurses will engage in ongoing professional development, analyze epidemiological data, contribute to early warning systems, implement infection control measures, educate communities on emerging threats, and collaborate with public health agencies in outbreak response. 	<ul style="list-style-type: none"> • This module covers global disease surveillance networks (e.g., WHO, ECDC, CDC), digital tools in outbreak monitoring, antimicrobial resistance trends, real-time data interpretation, emergency preparedness protocols, vaccination updates, and the role of nurses in rapid response and policy advocacy.
15 Vaccine Schedules and Recommendations		
<ul style="list-style-type: none"> • Understand the role of vaccines in controlling endemic diseases and reducing outbreaks. • Identify how vaccination coverage impacts herd immunity in endemic areas. • Apply evidence-based practices to promote vaccination uptake and address vaccine hesitancy. 	<ul style="list-style-type: none"> • Advocate for vaccination programs targeting endemic diseases within communities. • Educate patients on the benefits of vaccines for endemic disease prevention. • Monitor and report vaccination rates to identify gaps in immunization coverage. 	<ul style="list-style-type: none"> • Promoting vaccine programs, addressing hesitancy, understanding disease patterns, tracking vaccination rates, and aligning nursing with guidelines.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
16 The Principles of ‘Herd Immunity’		
<ul style="list-style-type: none"> • Explain the concept of herd immunity and its significance in preventing disease spread. Understand the threshold vaccination rates required to achieve herd immunity. Address barriers to herd immunity, including vaccine hesitancy and low coverage areas. 	<ul style="list-style-type: none"> • Promote vaccine uptake to contribute to community-level protection. Educate diverse populations on how herd immunity protects vulnerable groups. • Collaborate with healthcare teams to identify and close immunization gaps. 	<ul style="list-style-type: none"> • Advocacy: Promote vaccine policies for population protection. • Communication: Simplify herd immunity for public understanding. • Epidemiology: Calculate immunity thresholds. • Equity: Ensure fair vaccine access. • Monitoring: Track immunity levels. • Outreach: Boost vaccination in underserved areas. • Risk: Identify threats to herd immunity.
17 Understanding of ‘Travel Vaccination’		
<ul style="list-style-type: none"> • Understand the importance of travel vaccines in preventing disease importation. Identify required and recommended vaccines for different regions. Address patient concerns and provide tailored travel vaccine advice. 	<ul style="list-style-type: none"> • Assess patient travel plans to recommend appropriate vaccinations. • Educate travellers on vaccine-preventable diseases and risks. • Administer and document travel vaccinations following guidelines. 	<ul style="list-style-type: none"> • Assessment: Evaluate travel itineraries and health risks. • Education: Advise travellers on vaccine benefits. • Guidelines: Follow country-specific vaccination requirements. • Monitoring: Track vaccine updates and outbreaks. • Prevention: Promote vaccines for disease-free travel. • Risk: Address vaccine-preventable travel diseases. • Safety: Ensure safe administration and documentation.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
18 Comprehension on Epidemics and Pandemics		
<ul style="list-style-type: none"> Nurses gain knowledge on the differences between epidemics and pandemics, transmission dynamics, vaccine response, and public health interventions. 	<ul style="list-style-type: none"> Nurses will be able to explain epidemic and pandemic patterns, assess vaccine needs, support outbreak response, and educate communities on prevention strategies. 	<ul style="list-style-type: none"> Epidemiology of epidemics and pandemics, historical case studies, vaccine role in outbreak control, herd immunity, surveillance systems, and global health preparedness.

Development and Manufacture of Vaccines

19 Vaccine Development and Manufacturing Processing		
<ul style="list-style-type: none"> Nurses gain knowledge on vaccine development stages, manufacturing processes, quality control, regulatory frameworks, and ethical considerations in production. 	<ul style="list-style-type: none"> Nurses will be able to explain vaccine composition, assess production quality, address public concerns, and communicate manufacturing principles effectively. 	<ul style="list-style-type: none"> Fundamentals of vaccine development, production techniques, quality assurance, safety testing, storage requirements, and regulatory compliance for effective immunization practices.
20 Technology and Innovation in Vaccine Development		
<ul style="list-style-type: none"> Nurses gain knowledge on emerging technologies, innovative approaches in vaccine development, mRNA platforms, nanoparticle delivery, and AI-driven advancements in production. 	<ul style="list-style-type: none"> Nurses will be able to explain novel vaccine technologies, assess their impact, address patient concerns, and communicate the role of innovation in public health. 	<ul style="list-style-type: none"> Advancements in vaccine technology, AI and big data in development, mRNA vaccines, nanoparticle delivery systems, cold-chain innovations, and future trends.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
21 Case Study: Influenza and Covid		
<ul style="list-style-type: none"> Nurses gain knowledge on influenza and COVID-19 vaccine development, manufacturing differences, adaptation to variants, and public health impact. 	<ul style="list-style-type: none"> Nurses will be able to compare influenza and COVID-19 vaccine technologies, explain rapid development processes, and communicate effectiveness, safety, and booster strategies. 	<ul style="list-style-type: none"> Case study on influenza and COVID-19 vaccines, development timelines, mRNA vs. traditional platforms, variant adaptation, distribution challenges, and global immunization strategies.
22 Approval of Vaccines: Europe and Worldwide		
<ul style="list-style-type: none"> Understand regulatory pathways for vaccine approval in Europe and globally. Recognize key agencies (EMA, WHO, FDA and HERA) and their roles. Explain the importance of post-marketing surveillance. 	<ul style="list-style-type: none"> Describe vaccine approval processes to patients. Support public trust by explaining rigorous safety checks. Identify differences in approval timelines across regions. 	<ul style="list-style-type: none"> EMA and WHO and regional bodies assess safety and efficacy, collaborate on global approval, track post-approval safety, and manage fast-track vs. standard processes.

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MODULE II

Vaccination – a Practical Focus

Practical Vaccination Techniques

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
1 Preparation of Vaccines on Site		
<ul style="list-style-type: none"> • Understand the correct handling, storage, and reconstitution of vaccines. Recognize guidelines for aseptic preparation to ensure vaccine integrity. Identify common errors in vaccine preparation and ways to mitigate them. 	<ul style="list-style-type: none"> • Safely prepare vaccines according to protocol. • Maintain cold chain requirements during preparation. • Demonstrate accurate vaccine labelling, dilution, and syringe preparation. 	<ul style="list-style-type: none"> • Safe Preparation: Aseptic techniques, proper dilution, and handling of syringes and vials. • Cold Chain Management: Maintaining correct storage temperatures during preparation. • Documentation and Labelling: Accurate recording of batch numbers, expiration dates, and clear vaccine identification.
2 Administration Techniques		
<ul style="list-style-type: none"> • Understand intramuscular, subcutaneous, and intradermal vaccine administration techniques. Recognize site selection, needle size, and angles for different vaccines. Ensure patient comfort and minimize administration errors. 	<ul style="list-style-type: none"> • Demonstrate correct administration techniques for various vaccines. Select appropriate injection sites and equipment based on patient age and vaccine type. • Manage adverse reactions during and after administration. 	<ul style="list-style-type: none"> • Injection Techniques: Mastering intramuscular, subcutaneous, and intradermal delivery methods. • Site Selection: Choosing the correct anatomical site for different vaccines. • Patient Safety: Preventing errors, ensuring comfort, and managing adverse events.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
3 Practicing Asepsis Techniques		
<ul style="list-style-type: none"> • Understand aseptic techniques to prevent contamination during vaccine preparation and administration. Recognize the importance of hand hygiene, sterilization, and clean environments. Identify risks of improper aseptic practices and their consequences. 	<ul style="list-style-type: none"> • Apply aseptic techniques during vaccine preparation and injection. • Safely handle equipment, needles, and vials to maintain sterility. • Educate patients on infection prevention during vaccination. 	<ul style="list-style-type: none"> • Hand Hygiene and PPE: Proper use of gloves, masks, and sanitization. • Sterile Techniques: Maintaining a clean field during preparation and administration. • Infection Prevention: Identifying contamination risks and corrective actions.
4 Practicing Needle Safety		
<ul style="list-style-type: none"> • Understand safe needle handling, usage, and disposal practices. Recognize the risks of needlestick injuries and contamination. Apply protocols to minimize exposure and ensure patient and staff safety 	<ul style="list-style-type: none"> • Safely handle and dispose of needles following guidelines. Prevent needlestick injuries through correct techniques. Respond appropriately to accidental exposure incidents. 	<ul style="list-style-type: none"> • Safe Handling: Proper needle use, capping, and transfer techniques. • Disposal: Correct use of sharps containers and waste protocols. Injury Prevention • Techniques to avoid needlestick incidents and manage exposure.
5 Understanding and Handling in Cases of Adverse Effects		
<ul style="list-style-type: none"> • Understand the spectrum of vaccine-related adverse effects, from mild to severe. Recognize professional responsibility in managing and reporting adverse events. Follow protocols for patient follow-up and documentation of adverse effects. 	<ul style="list-style-type: none"> • Manage mild reactions (e.g., pain, fever) and respond to serious adverse effects (e.g., anaphylaxis). • Conduct follow-up care for patients experiencing adverse effects. • Report adverse events in compliance with national guidelines and professional standards. 	<ul style="list-style-type: none"> • Recognition and Management: Identifying and addressing mild (pain, swelling) and severe (allergic) reactions. • Follow-up and Reporting: Monitoring patients, documenting adverse events, and submitting reports to regulatory bodies. • Professional Responsibility Ensuring patient safety, transparency, and adherence to ethical guidelines in managing adverse effects.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
6 Handling According to National, Regional and Local Guidelines		
<ul style="list-style-type: none"> Nurses will understand the structure of national, regional, and local vaccination policies, recognize variations in immunisation recommendations, ensure compliance with official guidelines, and adapt vaccination practices to align with public health regulations. 	<ul style="list-style-type: none"> Nurses will interpret and apply immunisation guidelines at different levels, assess patient eligibility based on local recommendations, document vaccinations according to regulations, manage stock and cold chain logistics, and educate patients on locally relevant vaccination policies. 	<ul style="list-style-type: none"> This module covers the role of national immunisation programs, regional adaptations based on disease prevalence, local health authority guidelines, legal and ethical considerations in vaccination, surveillance and reporting requirements, and communication strategies for promoting guideline adherence.

Vaccination and Relation to Anti-Microbial Resistance

7 Explain the Inter-relationship Between Vaccination and Infection Prevention and Reduced Antibiotic Use in Combating AMR.’		
<ul style="list-style-type: none"> Understand how vaccines reduce infections and prevent unnecessary antibiotic use. Recognize the role of immunization in mitigating antimicrobial resistance. Explain vaccination’s contribution to global AMR strategies. 	<ul style="list-style-type: none"> Educate patients on vaccines as a preventive tool against infections and AMR. Advocate for vaccination programs to reduce antibiotic overuse. Identify and promote vaccines that target antibiotic-resistant infections. 	<ul style="list-style-type: none"> Prevention - How vaccines reduce infection rates and lower antibiotic demand. AMR Connection - Linking vaccination to reduced emergence of resistant pathogens. Advocacy - Promoting immunization as part of infection control and AMR policies

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
8 Infection Prevention Practices and Vaccination in Combating AMR		
<ul style="list-style-type: none"> • Understand infection prevention measures linked to vaccination in reducing AMR. • Recognize best practices to limit infection spread in clinical settings. • Explain how vaccine-preventable diseases reduce antibiotic reliance. 	<ul style="list-style-type: none"> • Implement infection control protocols to reduce healthcare-associated infections. • Integrate vaccination strategies into broader infection prevention plans. • Educate teams on how vaccination supports antimicrobial stewardship. 	<ul style="list-style-type: none"> • Infection Control: Applying hygiene and vaccination to prevent infection. • Surveillance: Monitoring infections to track vaccine effectiveness. • Clinical Practice: Aligning vaccination with AMR prevention protocols.
9 Implement Infection Prevention Practices Effectively in their Clinical Environments		
<ul style="list-style-type: none"> • Understand infection control measures to prevent disease transmission. • Recognize the role of vaccination in reducing healthcare-associated infections (HAIs). • Apply standard precautions and aseptic techniques in clinical practice. 	<ul style="list-style-type: none"> • Implement infection prevention protocols, including vaccination strategies. • Educate staff and patients on hygiene, PPE, and vaccine importance. • Monitor and report infection trends to improve prevention measures. 	<ul style="list-style-type: none"> • Standard Precautions: Hand hygiene, PPE, and environmental cleaning. • Vaccination Programs: Integrating vaccines into infection control strategies. • Surveillance and Reporting: Tracking and documenting infections and vaccine outcomes.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
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10 Advocate for and Participate in Antibiotic Stewardship Programs

<ul style="list-style-type: none"> • Understand the goals and components of antibiotic stewardship programs (ASPs). Recognize the role of vaccination in reducing unnecessary antibiotic use. • Identify strategies to advocate for responsible antibiotic prescribing. 	<ul style="list-style-type: none"> • Promote vaccination as a tool to prevent infections and reduce antibiotic use. • Collaborate with healthcare teams to monitor and improve antibiotic use. • Educate patients and peers on the risks of antimicrobial resistance (AMR). 	<ul style="list-style-type: none"> • Stewardship Principles: Reducing inappropriate antibiotic use through prevention. • Vaccination’s Role: Preventing infections to lower antibiotic demand. • Advocacy and Collaboration: Supporting policy change and team-based ASP initiatives. • Professional Responsibility: Ensuring patient safety, transparency, and adherence to ethical guidelines in managing adverse effects.
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11 Educate Patients and Colleagues on the Importance of Infection Control and Responsible Antibiotic Use

<ul style="list-style-type: none"> • Understand the link between infection control, vaccination, and antibiotic resistance. • Recognize communication strategies for promoting responsible antibiotic use. • Explain the impact of infection prevention on antimicrobial resistance (AMR). 	<ul style="list-style-type: none"> • Educate patients on vaccination and hygiene to prevent infections. • Guide colleagues in infection control practices and antimicrobial stewardship. • Address misconceptions about antibiotics and promote adherence to protocols.infections. 	<ul style="list-style-type: none"> • Patient Education: Communicating vaccine benefits and hygiene practices. • Staff Training: Promoting infection control and responsible prescribing. • Awareness Campaigns: Advocating for AMR prevention through vaccination.
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Working Within Guidelines

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
<h2>12 The Importance of Programs and Guidelines</h2>		
<ul style="list-style-type: none"> • Understand the role of national and international vaccination programs in public health. • Recognize how guidelines ensure standardized, safe, and equitable vaccine delivery. • Explain the link between programs, disease prevention, and outbreak control. 	<ul style="list-style-type: none"> • Implement vaccination programs according to guidelines and protocols. • Educate patients on the importance of adhering to recommended vaccine schedules. • Collaborate with healthcare teams to improve vaccine coverage and uptake. 	<ul style="list-style-type: none"> • Program Frameworks: Overview of national and WHO vaccination programs. • Guideline Implementation: Applying protocols for vaccine delivery and storage. • Outreach and Coverage: Promoting vaccination access and addressing hesitancy.
<h2>13 Review of National and International Programs and Guidelines</h2>		
<ul style="list-style-type: none"> • Understand the structure and goals of national immunization programs (NIPs) and WHO guidelines. 	<ul style="list-style-type: none"> • Compare national vaccination programs with international frameworks. • Apply global and regional guidelines in clinical practice. • Advocate for alignment with best practices to strengthen immunization efforts. 	<ul style="list-style-type: none"> • Global Standards: WHO guidelines and international vaccine schedules. • National Policies: Review of country-specific immunization programs. • Program Evaluation: Monitoring success and adapting to emerging health threats.
<h2>14 Implementing Programs and Guidelines</h2>		
<ul style="list-style-type: none"> • Understand the steps for applying vaccination guidelines in clinical settings. • Recognize the importance of program adherence to ensure public health goals. • Identify barriers to implementation and strategies to overcome them. 	<ul style="list-style-type: none"> • Apply national and international vaccination guidelines in practice. • Coordinate vaccine delivery within multidisciplinary teams. • Monitor and report vaccination outcomes to support program evaluation. 	<ul style="list-style-type: none"> • Operational Frameworks: Steps for implementing national immunization programs. • Team Coordination: Collaboration in program rollout and vaccine delivery. • Monitoring and Reporting: Ensuring guideline adherence and evaluating impact.

Vaccination Programs for Different Groups

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
15 Routine Child Vaccinations, Catch-up Vaccination Programs		
<ul style="list-style-type: none"> • Understand the importance of routine child vaccinations in disease prevention. Recognize catch-up vaccination strategies to close immunization gaps. Identify vaccine schedules and prioritize age-specific immunizations. 	<ul style="list-style-type: none"> • Administer routine childhood vaccines and plan catch-up schedules. • Educate parents on the importance of timely immunization. • Assess patient records to identify missed vaccines and address gaps. 	<ul style="list-style-type: none"> • Routine Vaccination: Standard schedules for infant and child immunization. • Catch-up Programs: Strategies to vaccinate unvaccinated or partially vaccinated children. • Patient Engagement: Communicating with families to encourage vaccine compliance.
16 Learning from History - Historic and Current Infection Outbreaks		
<ul style="list-style-type: none"> • Understand the importance of routine vaccinations for adults and elderly populations. • Recognize vaccines recommended for age-related risks (e.g., flu, pneumococcal, shingles). • Identify barriers to adult immunization and strategies to improve uptake. 	<ul style="list-style-type: none"> • Administer routine and booster vaccines for adults and elderly patients. • Educate patients on age-specific vaccine recommendations and benefits. • Assess immunization records to recommend catch-up or additional vaccines. 	<ul style="list-style-type: none"> • Routine Vaccines: Influenza, pneumococcal, shingles, tetanus boosters. • Routine Vaccines: Influenza, pneumococcal, shingles, tetanus boosters. • Risk Prevention: Vaccination for chronic conditions and weakened immunity. • Patient Education: Promoting vaccine awareness and addressing hesitancy in older adults.
17 Vaccinations for Specific Groups: Immunocompromised, Women, Pregnancy and Fragile Elderly		
<ul style="list-style-type: none"> • Understand tailored vaccine recommendations for immunocompromised, for woman, pregnancy, and fragile elderly patients. 	<ul style="list-style-type: none"> • Recognize contraindications and risks for specific groups. This also include the special relation in woman and vaccination. 	<ul style="list-style-type: none"> • Explain how targeted vaccinations protect vulnerable populations and the special role of women.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
18 Communication and Advise on Travel Vaccinations		
<ul style="list-style-type: none"> • Understand vaccines required and recommended for international travel. Recognize region-specific risks (e.g., yellow fever, typhoid, hepatitis A/B). Explain how travel vaccines prevent disease importation and outbreaks. 	<ul style="list-style-type: none"> • Assess travel itineraries to recommend appropriate vaccinations. • Educate patients on travel health risks and vaccine schedules. • Administer travel vaccines and provide documentation (e.g. yellow fever certificates). 	<ul style="list-style-type: none"> • Required Vaccines: Yellow fever, polio, meningitis (by destination). • Recommended Vaccines: Hepatitis, typhoid, rabies, Japanese encephalitis. • Patient Education: Travel health advice, mosquito-bite prevention, and post-travel monitoring.
19 Post-Travel Vaccination and Illness Monitoring		
<ul style="list-style-type: none"> • Understand the risks of post-travel illnesses from disease-sensitive areas. • Recognize symptoms of vaccine-preventable and emerging travel-related diseases. • Explain monitoring and reporting procedures for returning travellers. 	<ul style="list-style-type: none"> • Advise patients on post-travel symptom monitoring and early disease detection. • Identify and respond to signs of diseases like malaria, dengue, or hepatitis. • Educate travellers on when to seek medical attention after returning from high-risk regions. 	<ul style="list-style-type: none"> • Symptom Monitoring: Fever, rash, and gastrointestinal symptoms post-travel. • Disease Awareness: Identifying travel-related illnesses (e.g., malaria, Zika). • Follow-Up Care: Encouraging medical reviews for persistent or delayed symptoms.

MODULE III

Classification Context: NANDA, NIC, and NOC Frameworks

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
1 Understanding of Nursing Diagnose and Classifications System Related to Vaccination		
<ul style="list-style-type: none"> Nurses gain knowledge on nursing diagnoses, classification systems, and their application in vaccination care, including patient assessment and intervention planning 	<ul style="list-style-type: none"> Nurses will be able to identify vaccination-related nursing diagnoses, apply classification frameworks, document care processes, and integrate evidence-based practices in immunization. 	<ul style="list-style-type: none"> Nurses will be able to identify vaccination-related nursing diagnoses, apply classification frameworks, document care processes, and integrate evidence-based practices in immunization.
2 Vaccination in NANDA		
<ul style="list-style-type: none"> NANDA: Nurses gain knowledge on NANDA vaccine-related diagnoses, immunization principles, and patient education. 	<ul style="list-style-type: none"> Nurses apply NANDA diagnoses, safely administer vaccines, and manage adverse effects. 	<ul style="list-style-type: none"> Focuses on immunization protocols, NANDA classifications, and patient-centered care strategies.
3 Vaccination and NIC		
<ul style="list-style-type: none"> NIC: Nurses gain knowledge on NIC interventions for vaccination, immunization procedures, and patient education. 	<ul style="list-style-type: none"> Nurses implement NIC interventions, administer vaccines, monitor for reactions, and provide post-vaccination care. 	<ul style="list-style-type: none"> Focuses on achieving NOC outcomes related to immunization, patient engagement, and health promotion strategies.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
4 Vaccination and NIC		
<ul style="list-style-type: none"> • NOC: Nurses understand NOC outcomes for vaccination effectiveness, patient safety, and immunization knowledge. 	<ul style="list-style-type: none"> • Nurses achieve NOC outcomes by ensuring vaccination adherence, minimizing adverse effects, and enhancing patient immunization status. 	<ul style="list-style-type: none"> • Focuses on achieving NOC outcomes related to immunization, patient engagement, and health promotion strategies.
5 Integration into Clinical Practice		
<ul style="list-style-type: none"> • Nurses develop integrated knowledge from NANDA, NIC, and NOC frameworks to ensure effective, safe, and evidence-based vaccination practices. 	<ul style="list-style-type: none"> • Nurses apply NANDA diagnoses, implement NIC interventions, and achieve NOC outcomes, enhancing vaccination quality and patient safety. 	<ul style="list-style-type: none"> • Combines NANDA, NIC, and NOC principles to improve immunization protocols, patient engagement, and clinical decision-making for optimal outcomes.

MODULE IV

Vaccines, Preventable Diseases, Essentials of Transmission, Preventive Measures and Management.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
1 Historical context		
<ul style="list-style-type: none"> • Understand the historical milestones of vaccination, from smallpox to modern vaccines. • Recognize the impact of vaccination on global disease eradication and control. • Explain how historical successes shape current immunization programs. 	<ul style="list-style-type: none"> • Educate patients on the history and importance of vaccines. • Advocate for vaccination by referencing past disease outbreaks and successes. • Address vaccine hesitancy using historical evidence of efficacy and safety. 	<ul style="list-style-type: none"> • Milestones: Smallpox eradication, polio campaigns, and COVID-19 vaccine development. • Pioneers: Jenner, Pasteur, and Salk’s contributions to vaccination. • Global Impact: How vaccines reduced mortality and prevented pandemics.
2 Airborne		
<ul style="list-style-type: none"> • Understand airborne transmission of vaccine-preventable diseases (e.g., measles, varicella). • Recognize the role of catch-up vaccination in reducing airborne disease spread. • Explain infection control measures to minimize airborne transmission 	<ul style="list-style-type: none"> • Implement catch-up vaccination programs to close immunity gaps. • Educate patients and communities about airborne transmission risks. • Apply airborne infection prevention strategies (e.g., isolation, masking). 	<ul style="list-style-type: none"> • Airborne Diseases: Measles, chickenpox, and tuberculosis prevention through vaccination. • Catch-Up Strategies: Identifying and vaccinating missed populations. • Infection Control: PPE, ventilation, and promoting vaccine coverage to limit airborne spread.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
3 Water Transmitted		
<ul style="list-style-type: none"> • Understand waterborne transmission of vaccine-preventable diseases (e.g., cholera, hepatitis A). • Recognize the importance of catch-up vaccination in outbreak-prone areas. • Explain sanitation and hygiene practices to prevent waterborne infections. 	<ul style="list-style-type: none"> • Administer vaccines to prevent waterborne diseases in vulnerable populations. • Educate communities on hygiene and the role of vaccination in preventing waterborne diseases. • Implement catch-up vaccination strategies during outbreaks or post-disaster. 	<ul style="list-style-type: none"> • Waterborne Diseases - Cholera, hepatitis A, and typhoid vaccine programs. • Catch-Up Programs - Addressing unvaccinated groups in high-risk areas. • Prevention Measures - Safe water practices, sanitation, and vaccine promotion.
4 Through Insects and Animals		
<ul style="list-style-type: none"> • Understand how mosquitoes and animals transmit vaccine-preventable diseases (e.g., yellow fever, rabies). • Recognize the role of vaccination in preventing vector-borne outbreaks. • Explain environmental and personal protection measures to reduce exposure. 	<ul style="list-style-type: none"> • Administer vaccines for mosquito and animal-borne diseases (e.g., yellow fever, rabies). • Educate patients on bite prevention and post-exposure protocols. • Support vaccination programs targeting at-risk populations and travelers. 	<ul style="list-style-type: none"> • Vector-Borne Diseases: Yellow fever, Japanese encephalitis, rabies prevention. • Catch-Up Programs: Vaccinating missed populations in endemic regions. • Prevention Strategies: Use of insect repellents, bed nets, and pet vaccination.
5 From Human to Human		
<ul style="list-style-type: none"> • Understand how vaccine-preventable diseases (e.g., influenza, measles, COVID-19) spread through human contact. • Recognize the importance of herd immunity in interrupting transmission chains. • Explain the role of mass vaccination in controlling outbreaks. 	<ul style="list-style-type: none"> • Administer vaccines that prevent human-to-human transmission. • Educate patients on how vaccination protects communities and reduces disease spread. • Implement infection control measures to limit transmission in healthcare and public settings. 	<ul style="list-style-type: none"> • Human-to-Human Diseases: Measles, influenza, COVID-19, pertussis. • Catch-Up Programs: Reaching under-vaccinated populations to prevent outbreaks. • Prevention Measures: Masking, isolation, and promoting vaccine compliance.

MODULE V

Disease Specific Vaccination Competencies

Specific on Influenza Vaccination

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
1 Respiratory Diseases		
<ul style="list-style-type: none"> • Influenza virus transmission pathways and seasonal patterns. • Preventive measures, including vaccination schedules and public health strategies. • Patient education regarding influenza symptoms, risk factors, and vaccine efficacy. • Management of influenza outbreaks and adverse reactions to vaccines. 	<ul style="list-style-type: none"> • Administer influenza vaccines following best practices and safety protocols. • Educate patients on influenza prevention and promote vaccination adherence. • Recognize and manage influenza symptoms and potential complications. • Engage in community outreach and public health initiatives to increase vaccine coverage. 	<ul style="list-style-type: none"> • Essentials of influenza transmission and epidemiology. • Essentials of influenza transmission and epidemiology. • Overview of influenza vaccine development and types (inactivated, live attenuated). • Step-by-step vaccine administration techniques and cold chain management. • Communication strategies to address vaccine hesitancy and misinformation. • Case studies on managing influenza outbreaks and patient scenarios. • Post-vaccination monitoring and reporting of adverse events.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
2 Specific on COVID-19		
<ul style="list-style-type: none"> • SARS-CoV-2 transmission, variants, and global spread patterns. • Preventive measures, including COVID-19 vaccination schedules, boosters, and public health guidelines. • Patient education on COVID-19 vaccine efficacy, side effects, and addressing misinformation. • Management of post-vaccination symptoms and monitoring for rare adverse reactions. 	<ul style="list-style-type: none"> • Administer COVID-19 vaccines and boosters safely and efficiently. • Educate patients and communities on COVID-19 prevention, vaccination benefits, and public health measures. • Recognize and respond to adverse vaccine reactions, including myocarditis and anaphylaxis. • Collaborate with public health teams in vaccination campaigns and outbreak response initiatives. 	<ul style="list-style-type: none"> • Pathophysiology of SARS-CoV-2 and COVID-19 progression. • Overview of COVID-19 vaccine technologies (mRNA, vector-based, protein subunit). • Vaccine administration techniques, storage, and cold chain management. • Strategies for addressing vaccine hesitancy and promoting equitable vaccine distribution. • Case studies on COVID-19 outbreak management and patient care scenarios. • Post-vaccination monitoring, reporting, and long-term surveillance.
3 Pneumococcal Vaccination Learning		
<ul style="list-style-type: none"> • Nurses will understand pneumococcal disease epidemiology, transmission, and complications, identify at-risk populations, differentiate vaccine types (PCV and PPSV), ensure proper administration, manage adverse effects, and educate patients on long-term protection. 	<ul style="list-style-type: none"> • Nurses will assess patient eligibility based on age and risk factors, administer pneumococcal vaccines per guidelines, document doses accurately, monitor for reactions, and provide clear education on booster schedules and disease prevention. 	<ul style="list-style-type: none"> • This module covers pneumococcal disease burden, pathophysiology, vaccine mechanisms, indications for different formulations (PCV13, PCV20, PPSV23), dosing schedules, co-administration with other vaccines, contraindications, surveillance data, and patient communication strategies.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
4 Specific on RSV Vaccination		
<ul style="list-style-type: none"> Nurses will understand RSV epidemiology, risk groups, and vaccine types, develop communication strategies for patient education, ensure safe vaccine administration, and recognize contraindications, adverse effects, and post-vaccination monitoring requirements. 	<ul style="list-style-type: none"> Nurses will demonstrate proficiency in RSV vaccine preparation, administration, and documentation, apply infection prevention protocols, assess patient eligibility, manage adverse reactions, and provide accurate, evidence-based counselling on RSV protection. 	<ul style="list-style-type: none"> This module covers RSV pathophysiology, vaccine mechanisms, administration techniques, patient eligibility criteria, contraindications, safety protocols, cold chain management, surveillance data, and public health impact, integrating case studies and real-world scenarios.

Elderly and Vulnerable Groups

1 Specific on Shingles Vaccination		
<ul style="list-style-type: none"> Varicella-zoster virus transmission and reactivation leading to shingles. Preventive measures, including vaccination guidelines and risk group identification. Patient education on shingles symptoms, vaccine efficacy, and postherpetic neuralgia. Management of shingles outbreaks and vaccine side effects. 	<ul style="list-style-type: none"> Administer shingles vaccines in accordance with best practices and safety protocols. Educate patients on shingles prevention, treatment options, and vaccine benefits. Recognize and manage shingles symptoms and complications such as postherpetic neuralgia. Implement community health initiatives to improve shingles vaccination rates. 	<ul style="list-style-type: none"> Pathophysiology of varicella-zoster virus and shingles progression. Overview of shingles vaccine types (recombinant and live attenuated). Vaccine administration techniques and cold chain requirements. Strategies to address vaccine hesitancy and increase coverage among older adults. Case studies on shingles management and patient care scenarios. Post-vaccination follow-up and adverse event monitoring.

Cancer Preventing

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
2 Specific on HPV Vaccination		
<ul style="list-style-type: none"> Nurses will understand HPV epidemiology, transmission, and cancer prevention, explain vaccine schedules and target populations, address vaccine hesitancy, ensure safe administration, and manage adverse effects while promoting HPV immunization programs. 	<ul style="list-style-type: none"> Nurses will competently assess patient eligibility, administer HPV vaccines per guidelines, document accurately, manage side effects, educate on long-term benefits, counter misinformation, and collaborate in school-based and community vaccination programs. 	<ul style="list-style-type: none"> This module covers HPV types, vaccine efficacy, dosing schedules, administration techniques, safety considerations, public health benefits, consent processes, addressing myths, and strategies to improve vaccination uptake through evidence-based communication.
3 Hepatitis		
<ul style="list-style-type: none"> Nurses will understand the epidemiology, transmission, and complications of hepatitis A and B, differentiate vaccine types and schedules, assess patient risk factors, ensure proper administration, and educate on long-term protection and prevention. 	<ul style="list-style-type: none"> Nurses will assess patient eligibility for hepatitis A and B vaccines, administer doses per recommended schedules, document vaccinations accurately, monitor for adverse reactions, and provide education on disease prevention, high-risk populations, and post-exposure prophylaxis. 	<ul style="list-style-type: none"> This module covers hepatitis A and B pathophysiology, risk factors, vaccine mechanisms (monovalent and combination vaccines), dosing schedules, target populations (healthcare workers, travelers, high-risk groups), contraindications, co-administration with other vaccines, and patient counselling strategies.

Travel and Zoonotic Disease Vaccines

Essential for travelers and populations in endemic regions

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
1 Yellow Fever		
<ul style="list-style-type: none"> Nurses will understand yellow fever epidemiology, transmission by mosquitoes, global risk areas, vaccine efficacy, and duration of protection. They will ensure safe administration, recognize contraindications, manage adverse effects, and educate travelers on prevention. 	<ul style="list-style-type: none"> Nurses will assess patient eligibility based on travel history and health status, administer the live-attenuated vaccine, document vaccination on the International Certificate of Vaccination, provide travel health advice, and manage potential adverse reactions. 	<ul style="list-style-type: none"> This module covers yellow fever pathophysiology, vector control, vaccine characteristics, international health regulations (IHR), vaccination certification, contraindications (e.g., immunocompromised individuals, infants), booster recommendations, adverse event management, and travel health education.
2 Rabies		
<ul style="list-style-type: none"> Nurses will understand rabies transmission, risk factors, and disease progression, differentiate pre-exposure and post-exposure prophylaxis (PEP), ensure correct vaccine administration, recognize high-risk groups, and educate on bite prevention and emergency response. 	<ul style="list-style-type: none"> Nurses will assess patient risk for rabies exposure, administer pre-exposure and post-exposure vaccines per WHO guidelines, ensure correct wound care and immunoglobulin use, document vaccination, and educate patients on the importance of timely treatment. 	<ul style="list-style-type: none"> This module covers rabies virus pathophysiology, transmission through animal bites, global burden, pre- and post-exposure vaccination protocols, vaccine schedules, PEP immunoglobulin administration, adverse effects, travel recommendations, and patient education on animal bite response.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
3 Japanese Encephalitis		
<ul style="list-style-type: none"> Nurses will understand Japanese encephalitis (JE) epidemiology, transmission via mosquito vectors, high-risk regions, vaccine types, dosing schedules, contraindications, and the importance of vaccination for travelers and at-risk populations. 	<ul style="list-style-type: none"> Nurses will assess patient eligibility based on travel plans and occupational exposure, administer JE vaccines according to guidelines, document doses accurately, provide mosquito-bite prevention advice, and recognize and manage potential adverse reactions. 	<ul style="list-style-type: none"> This module covers JE pathophysiology, endemic areas, vaccine options (inactivated and live vaccines), recommended schedules, co-administration with other travel vaccines, risk-based recommendations, contraindications, post-vaccine monitoring, and travel health education.

Emerging and Specialty Vaccines

Protecting high-risk populations and healthcare workers, particularly in outbreak settings.

1 Mpox (Monkeypox) Vaccine		
<ul style="list-style-type: none"> Nurses will understand mpox transmission, risk groups, clinical presentation, and prevention strategies. They will differentiate vaccine types, ensure proper administration, recognize contraindications, and educate patients on risk reduction and post-exposure prophylaxis. 	<ul style="list-style-type: none"> Nurses will assess patient eligibility based on exposure risk and health status, administer mpox vaccines per guidelines, document doses accurately, monitor for adverse reactions, and provide education on prevention, outbreak response, and post-exposure vaccination. 	<ul style="list-style-type: none"> This module covers mpox epidemiology, zoonotic transmission, high-risk populations, vaccine types (live non-replicating), dosing schedules, safety considerations, outbreak preparedness, co-administration with other vaccines, and communication strategies for reducing stigma and misinformation.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
2 Meningococcal Vaccine		
<ul style="list-style-type: none"> Nurses will understand yellow fever epidemiology, transmission by mosquitoes, global risk areas, vaccine efficacy, and duration of protection. They will ensure safe administration, recognize contraindications, manage adverse effects, and educate travelers on prevention. 	<ul style="list-style-type: none"> Nurses will assess patient eligibility based on travel history and health status, administer the live-attenuated vaccine, document vaccination on the International Certificate of Vaccination, provide travel health advice, and manage potential adverse reactions. 	<ul style="list-style-type: none"> This module covers meningococcal disease epidemiology, vaccine types and schedules, indications for adolescents, travelers, immunocompromised individuals, and outbreak settings, contraindications, co-administration with other vaccines, and communication strategies for high-risk populations.
3 Tuberculosis (BCG) Vaccine		
<ul style="list-style-type: none"> Nurses will understand tuberculosis (TB) epidemiology, transmission, and global burden, identify high-risk populations, explain the role of the Bacillus Calmette-Guérin (BCG) vaccine, ensure correct administration, and recognize contraindications and potential side effects 	<ul style="list-style-type: none"> Nurses will assess patient eligibility based on TB exposure risk, administer the intradermal BCG vaccine correctly, document vaccination, monitor for local reactions, and provide education on TB prevention, screening, and the vaccine's limitations. 	<ul style="list-style-type: none"> This module covers TB pathophysiology, vaccine indications and efficacy, administration technique, target groups (newborns, high-risk adults, healthcare workers), contraindications (immunocompromised individuals), expected reactions, surveillance data, and TB prevention strategies.

Occupational and Adult Booster Vaccines

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
1 Tetanus, Diphtheria, and Pertussis (Tdap) Booster		
<ul style="list-style-type: none"> Nurses will understand the epidemiology, transmission, and complications of tetanus, diphtheria, and pertussis, explain the importance of booster doses, ensure proper vaccine administration, and educate patients on the need for lifelong protection. 	<ul style="list-style-type: none"> Nurses will assess patient eligibility for Tdap boosters based on age and risk factors, administer the vaccine correctly, document doses accurately, manage adverse reactions, and educate individuals, including pregnant women and healthcare workers, on booster importance. 	<ul style="list-style-type: none"> This module covers Tdap disease prevention, vaccine schedules for different age groups, maternal immunization benefits, wound management indications for tetanus prophylaxis, co-administration with other vaccines, contraindications, and patient counseling strategies.
2 Hepatitis A Vaccine		
<ul style="list-style-type: none"> Nurses will understand hepatitis A epidemiology, transmission routes, and risk factors, differentiate vaccine types, ensure correct administration, recognize contraindications, and educate patients on long-term protection, hygiene, and travel-related prevention. 	<ul style="list-style-type: none"> Nurses will assess patient eligibility for hepatitis A vaccination based on risk factors (travel, occupational exposure, liver disease), administer the vaccine correctly, document doses, monitor for adverse reactions, and provide education on food and waterborne prevention strategies. 	<ul style="list-style-type: none"> This module covers hepatitis A pathophysiology, global burden, vaccine types (monovalent and combination with hepatitis B), dosing schedules, target populations (travelers, food workers, healthcare personnel), contraindications, co-administration with other vaccines, and patient communication strategies.

MODULE VI

Managing Vaccination and Programs and Venue Lead

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
1 Planning, Procurement Process, Budgeting		
<ul style="list-style-type: none"> • Choosing and health institutes procuring vaccines: Planning, Procurement process, Budgeting and Maintaining supply 	<ul style="list-style-type: none"> • At the end of this module, nurses will effectively plan, procure, budget, and manage vaccine supplies, ensuring continuous availability and alignment with institutional health goals. 	<ul style="list-style-type: none"> • Covers procurement cycles, budgeting strategies, forecasting, storage, and collaboration with health authorities to sustain vaccination programs.
2 Transport and Storage		
<ul style="list-style-type: none"> • Transporting and storing vaccines: Track and trace, Transport/cold chain, and Storage 	<ul style="list-style-type: none"> • By the end of this module, nurses will ensure safe vaccine transport, maintain cold chain integrity, and apply track-and-trace systems to prevent spoilage and ensure efficacy. 	<ul style="list-style-type: none"> • Focuses on cold chain logistics, transport protocols, storage requirements, monitoring systems, and emergency handling to safeguard vaccine potency and compliance.
3 Overall Communication and Relations		
<ul style="list-style-type: none"> • Communicating with patients; Communication strategies, Informed consent, Pain management and Documentation 	<ul style="list-style-type: none"> • By the end of this module, nurses will confidently communicate vaccine benefits, obtain informed consent, manage pain, and ensure accurate documentation, fostering trust and adherence. 	<ul style="list-style-type: none"> • Includes communication techniques, consent procedures, pain reduction strategies, and comprehensive record-keeping to enhance patient experience and ensure legal and ethical compliance.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
4 Education Program Managing		
<ul style="list-style-type: none"> Vaccination education campaigns: Engaging with campaigns and Adapting campaigns for local use 	<ul style="list-style-type: none"> By the end of this module, nurses will effectively engage in vaccination campaigns, adapting strategies to local needs to enhance outreach and community participation. 	<ul style="list-style-type: none"> Covers campaign planning, community engagement, cultural adaptation, and collaboration with stakeholders to boost vaccine uptake and address local barriers.
5 Management Vaccinations Centers		
<ul style="list-style-type: none"> Program management of vaccination centres 	<ul style="list-style-type: none"> By the end of this module, nurses will manage vaccination center operations, ensuring efficient workflows, resource allocation, staff coordination, and patient safety. 	<ul style="list-style-type: none"> Focuses on center setup, scheduling, staff management, inventory control, patient flow, and quality assurance to optimize vaccination delivery and accessibility.
6 Handling Ethics and Legal Implications		
<ul style="list-style-type: none"> Ethical and legal aspects, Patient rights, data privacy and GDPR regulations and Ethical and religious dilemmas for nurses and patients. 	<ul style="list-style-type: none"> Ethical and legal aspects, Patient rights, data privacy and GDPR regulations and Ethical and religious dilemmas for nurses and patients 	<ul style="list-style-type: none"> Covers patient autonomy, informed consent, data protection, confidentiality, and strategies for managing diverse ethical and cultural perspectives in vaccination practices.
7 Site Operations and Logistics		
<ul style="list-style-type: none"> Nurses will understand site setup, workflow optimization, resource management, and coordination of vaccination teams to ensure smooth operations and patient throughput. 	<ul style="list-style-type: none"> Nurses will organize site layouts, manage staffing, and streamline processes for efficient vaccine administration while ensuring adherence to protocols. 	<ul style="list-style-type: none"> Focuses on site design, staffing models, patient flow, inventory control, and communication strategies to ensure operational efficiency.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
8 Vaccine Storage, Handling, and Record-Keeping		
<ul style="list-style-type: none"> Nurses will gain knowledge of vaccine cold chain management, proper storage practices, and maintaining accurate vaccination records. 	<ul style="list-style-type: none"> Nurses will ensure cold chain integrity, monitor vaccine stock, and accurately record patient data, ensuring compliance with health regulations. 	<ul style="list-style-type: none"> Covers cold chain logistics, temperature monitoring, data entry, stock rotation, and emergency response protocols for vaccine safety.
9 Crowd Control and Patient Flow		
<ul style="list-style-type: none"> Nurses will understand principles of crowd management, patient flow optimization, and strategies to prevent congestion at vaccination sites. 	<ul style="list-style-type: none"> Nurses will implement queue systems, direct patient movement, and manage site capacity to ensure orderly and efficient vaccine delivery. 	<ul style="list-style-type: none"> Addresses queue management, site zoning, signage, and scheduling techniques to prevent overcrowding and minimize wait times.
10 Overall Communication and Relations		
<ul style="list-style-type: none"> Nurses will understand de-escalation techniques, risk assessment, and protocols for managing aggression or disruptive behavior at vaccination sites. 	<ul style="list-style-type: none"> Nurses will handle patient concerns, de-escalate conflicts, and implement site safety measures to protect staff and patients. 	<ul style="list-style-type: none"> Focuses on conflict resolution, situational awareness, security protocols, and team training in handling aggressive situations.

MODULE VII

Leadership and Nurse Teaching in and on Vaccination

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
1 Empowering Nurse Leadership in Vaccination Programs		
Objectives: Equip nurses with the leadership skills needed to drive vaccination initiatives, advocate for policy changes, and lead multidisciplinary teams.		
<ul style="list-style-type: none"> Nurses gain leadership, advocacy, and strategic skills to influence vaccination policies, drive initiatives, and manage multidisciplinary teams for improved public health. 	<ul style="list-style-type: none"> Nurses effectively lead vaccination campaigns, collaborate across sectors, and advocate for policy enhancements, ensuring equitable vaccine access and adherence. 	<ul style="list-style-type: none"> Leadership development, policy frameworks, interprofessional collaboration, and public health strategies to enhance vaccination programs and drive systemic improvements.
Key Components: Training in public health leadership, focusing on vaccination campaigns and community engagement; Workshops on advocacy, communication, and collaboration with policymakers and stakeholders; Case studies highlighting successful nurse-led vaccination programs.		
<ul style="list-style-type: none"> Nurses gain skills in public health leadership, vaccination campaign management, community engagement, advocacy, and stakeholder collaboration. 	<ul style="list-style-type: none"> Nurses lead vaccination programs, engage communities, advocate with policymakers, and collaborate effectively with multidisciplinary teams and stakeholders. 	<ul style="list-style-type: none"> Leadership development, policy frameworks, interprofessional collaboration, and public health strategies to enhance vaccination programs and drive systemic improvements.
Outcome: Nurses become influential leaders, capable of shaping vaccination policies and ensuring robust implementation.		
<ul style="list-style-type: none"> Nurses gain skills in public health leadership, vaccination campaign management, community engagement, advocacy, and stakeholder collaboration. 	<ul style="list-style-type: none"> Nurses lead vaccination programs, engage communities, advocate with policymakers, and collaborate effectively with multidisciplinary teams and stakeholders. 	<ul style="list-style-type: none"> Training in public health leadership, vaccination campaigns, advocacy, communication, stakeholder collaboration, and case studies on successful nurse-led initiatives.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
<h2>2 Innovative Teaching Strategies for Vaccination Knowledge Dissemination</h2>		
<p>Objectives: Develop dynamic teaching methodologies that enhance nurses' understanding of vaccination science, administration, and patient education.</p>		
<ul style="list-style-type: none"> • Learning Outcomes: Nurses understand immunization science, vaccine development, administration techniques, and effective patient communication, fostering informed decision-making and increased vaccination uptake in diverse communities. 	<ul style="list-style-type: none"> • Nurses confidently administer vaccines, educate patients on benefits and risks, address hesitancy, and engage in community outreach to promote immunization and public health initiatives. 	<ul style="list-style-type: none"> • Interactive workshops, role-play scenarios, evidence-based vaccination protocols, communication strategies, and case studies demonstrating successful nurse-led patient education and vaccination programs.
<p>Key Components: Incorporation of digital learning tools, including simulation-based training and virtual reality for vaccination techniques; Modules on the latest immunology, epidemiology, and vaccine development advancements; Emphasis on effective patient education strategies to counter misinformation and build vaccine confidence.</p>		
<ul style="list-style-type: none"> • Nurses gain skills in public health leadership, vaccination campaign management, community engagement, advocacy, and stakeholder collaboration. 	<ul style="list-style-type: none"> • Nurses lead vaccination programs, engage communities, advocate with policymakers, and collaborate effectively with multidisciplinary teams and stakeholders. 	<ul style="list-style-type: none"> • Leadership development, policy frameworks, interprofessional collaboration, and public health strategies to enhance vaccination programs and drive systemic improvements.
<p>Outcome: Nurses are equipped with advanced teaching skills to educate patients, peers, and communities effectively.</p>		
<ul style="list-style-type: none"> • Nurses gain advanced knowledge in immunology, epidemiology, vaccination technologies, and patient communication to lead education efforts and foster vaccine confidence in diverse populations. 	<ul style="list-style-type: none"> • Nurses effectively administer vaccines, educate patients, follow standardized protocols, and engage in quality improvement initiatives to strengthen immunization services across healthcare environments. 	<ul style="list-style-type: none"> • Comprehensive modules on vaccination policies, immunization techniques, patient education, and public health frameworks, fostering uniformity and excellence in vaccination delivery and advocacy.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
<h3>3 Standardized Curriculum for Professional Competency in Vaccination</h3>		
<p>Objective: Establish a comprehensive, standardized curriculum to harmonize vaccination education and practice across diverse healthcare settings.</p>		
<ul style="list-style-type: none"> Nurses gain in-depth knowledge of vaccine protocols, immunization schedules, safety guidelines, and public health strategies to ensure uniform, high-quality vaccination practices. 	<ul style="list-style-type: none"> Nurses effectively administer vaccines, educate patients, follow standardized protocols, and engage in quality improvement initiatives to strengthen immunization services across healthcare environments. 	<ul style="list-style-type: none"> Comprehensive modules on vaccination policies, immunization techniques, patient education, and public health frameworks, fostering uniformity and excellence in vaccination delivery and advocacy.
<p>Key Components: Core curriculum covering vaccine-preventable diseases, storage and handling, administration techniques, and post-vaccination care; Specialized tracks for advanced roles, such as vaccine program coordinators and nurse educators; Certification pathways to validate competencies and support career advancement.</p>		
<ul style="list-style-type: none"> Nurses gain expertise in disease prevention, vaccine handling, and Comprehensive modules on vaccine storage, administration, adverse 	<ul style="list-style-type: none"> Nurses administer vaccines safely, manage immunization programs, train peers, and lead quality initiatives to expand access and enhance community health outcomes. 	<ul style="list-style-type: none"> Comprehensive modules on vaccine storage, administration, adverse event management, program coordination, and patient education, fostering excellence and leadership in immunization practice.
<p>Outcome: A harmonized approach to vaccination training ensures consistent, high-quality care and enhances professional recognition of nurses' expertise.</p>		
<ul style="list-style-type: none"> Nurses gain comprehensive knowledge on vaccine protocols, immunization safety, patient education, and leadership in vaccination initiatives, supporting consistent healthcare delivery and improved outcomes. populations. 	<ul style="list-style-type: none"> Nurses lead vaccination programs, ensure proper vaccine storage and administration, educate patients, and engage in quality improvement initiatives, fostering excellence in immunization practices. 	<ul style="list-style-type: none"> Detailed modules on disease prevention, cold chain management, injection techniques, adverse event monitoring, and leadership development, promoting harmonized vaccination training and career advancement.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
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4 Credentials. Licencing and Autonomy

This session aims to equip nurses with the knowledge and skills to navigate professional credentials and licensing, ensuring compliance with national and international standards. Participants will develop leadership competencies to advocate for autonomy, expand their roles, and apply evidence-based decision-making in practice. The session will also explore strategies for career progression through continuing education and certification while emphasizing the role of nurses in shaping healthcare policies and improving patient outcomes.

- Nurses will understand the significance of professional credentials, licensing requirements, and autonomy in practice. They will develop leadership skills to navigate regulatory frameworks, advocate for their professional role, and implement evidence-based decision-making in their scope of practice.

- Nurses will demonstrate proficiency in obtaining and maintaining professional credentials, adhere to licensing and regulatory standards, apply critical thinking to autonomous decision-making, engage in continuing professional development, and advocate for expanded roles in healthcare leadership.

- This module covers professional certification pathways, licensing processes across jurisdictions, scope of practice regulations, leadership in nursing autonomy, advocacy for policy change, continuous learning strategies, interdisciplinary collaboration, and the role of credentials in career advancement.

MODULE VIII

Nurses and Prescribing Vaccinations

The Role of Nurses with Prescribing Authority in Vaccination Uptake

Nurses with prescribing authority play a crucial role in increasing vaccine uptake by ensuring timely and accessible immunization services. Their ability to prescribe vaccines reduces dependency on medical professionals, streamlining the vaccination process and improving efficiency in healthcare settings. By integrating vaccine prescribing into their practice, nurses enhance patient-centered care, foster trust, and address vaccine hesitancy more effectively. This authority is not granted lightly—it is earned through an advanced study pathway, equipping nurses with specialized knowledge in immunology, pharmacology, and clinical decision-making. They undergo rigorous training and assessment to ensure they meet the highest professional standards. With this expertise, they are **licensed to act with autonomy**, making evidence-based prescribing decisions that align with national and international immunization guidelines. Empowering nurses to prescribe vaccines not only strengthens the healthcare workforce but also enhances **public health resilience**, ensuring that more individuals receive timely and appropriate vaccinations while alleviating pressure on overstretched medical services.

This module ensures nurses are equipped with the competencies to **safely and effectively prescribe vaccines**, enhancing patient care and public health outcomes.

Learnings outcomes At the end of this module, nurses have knowledge on	Practice competencies At the end of this module, nurses will be able to	Learning content Core knowledge, principles, and practical skills essential for competencies
<ul style="list-style-type: none">At the end of this module, nurses will have knowledge on: The legal and regulatory frameworks for nurse prescribing of vaccines. The principles of safe and effective vaccine prescribing. Patient assessment for vaccination eligibility and contraindications. Pharmacovigilance, adverse event reporting, and risk management in vaccination. Ethical considerations and shared decision-making in vaccine prescribing.	<ul style="list-style-type: none">At the end of this module, nurses will be able to: Identify the scope and limitations of nurse prescribing within their jurisdiction. Assess patient vaccination needs based on clinical guidelines and medical history. Prescribe appropriate vaccines following protocols, considering age, risk groups, and contraindications. Provide clear information on vaccine benefits, potential side effects, and post-vaccination care. Monitor and report adverse effects, ensuring patient safety and compliance with pharmacovigilance policies.	<ul style="list-style-type: none">Regulatory Frameworks & Legal Considerations: National and European regulations, scope of practice, and professional responsibilities. Principles of Vaccine Prescribing: Vaccine indications, contraindications, dosing schedules, and administration protocols. Clinical Decision-Making: Patient assessment, risk-benefit analysis, and documentation requirements. Pharmacovigilance & Safety Monitoring: Adverse event reporting, management of anaphylaxis, and post-vaccine observation. Ethical & Professional Considerations: Informed consent, health literacy, patient autonomy, and shared decision-making.

<p>Learnings outcomes</p> <p>At the end of this module, nurses have knowledge on</p>	<p>Practice competencies</p> <p>At the end of this module, nurses will be able to</p>	<p>Learning content</p> <p>Core knowledge, principles, and practical skills essential for competencies</p>
<p>Case Studies</p>		
<p>Case Study 1</p>	<p>Case Study 2</p>	<p>Case Study 3</p>
<ul style="list-style-type: none"> • A nurse prescribing influenza vaccination for an elderly patient with comorbidities. 	<ul style="list-style-type: none"> • Assessing eligibility for COVID-19 vaccination in an immunocompromised patient. 	<ul style="list-style-type: none"> • Managing vaccine hesitancy in a pregnant patient considering Tdap vaccination.
<p>Assessment & Evaluation</p>		
<ul style="list-style-type: none"> • Scenario-Based MCQs: Evaluating decision-making in prescribing vaccinations. 	<ul style="list-style-type: none"> • Practical Simulation: Conducting patient consultations and prescribing vaccines based on case scenarios. 	<ul style="list-style-type: none"> • Reflection Exercise: Ethical considerations in prescribing and addressing patient concerns. Communication of benefits.

Chapter D

PRACTICAL WORKSHOP

Hands-on Training

Hands-on training in vaccination techniques

This focuses on practicing various vaccine administration techniques, hygiene measures, including intramuscular, subcutaneous, and intradermal injections. Participants will practice proper injection sites, needle handling, and techniques to minimize discomfort and ensure accurate delivery of vaccines.

Case-based discussion of various clinical scenarios

This level is about analyzing and discussing clinical step by step scenarios related to vaccination. It includes reviewing detailed case studies on vaccine administration, managing adverse reactions, and addressing patient concerns. Participants will collaborate to evaluate the cases, apply best practices, and develop problem-solving skills for real-world vaccination challenges

Simulations and role-playing to practice patient communication

This workshop uses simulations and role-playing exercises to enhance skills in patient communication about vaccinations. Participants will engage in interactive scenarios to practice discussing vaccine benefits, addressing concerns, and managing difficult conversations. These exercises aim to build confidence, improve interpersonal skills, and ensure effective, empathetic patient interactions.

Case based prescribing course

This aspect relates the case-based learning to enhance nurses' and prescribing skills. Participants will analyze real-world scenarios involving various patient conditions and medication needs, including vaccines. The course focuses on applying theoretical knowledge to make informed prescribing decisions, considering patient history, contraindications, and treatment goals, with opportunities for hands-on practice and discussion.

Practical workshop on program management of vaccination facilities

This workshop offers hands-on experience in managing vaccination facilities. Participants will engage in activities related to operational planning, resource allocation, and workflow optimization and see that nurses are qualified and otherwise, are educated and certified for their operational work. Topics include staff coordination, patient scheduling, inventory management, adherence to health protocols and professional education development. The goal is to enhance participants' skills in running efficient and effective vaccination programs.

Assessment

1 Assessment, Exam, Certification and Recognition

Credibility of the Assessment Institute

This focuses on practicing various vaccine administration techniques, hygiene measures, including intramuscular, subcutaneous, and intradermal injections. Participants will practice proper injection sites, needle handling, and techniques to minimize discomfort and ensure accurate delivery of vaccines.

Exam Administration

Exams are conducted with rigorous adherence to standardized protocols to ensure fairness, reliability, and integrity. The administration process includes secure test environments, precise evaluation criteria, and detailed instructions. This approach guarantees that participants are assessed accurately on their theoretical knowledge and practical skills, reflecting real-world scenarios and maintaining high professional standards.

National Exam, Certification, and Recognition

National exams are crucial for certifying professionals and are widely recognized within the healthcare industry. They are typically required for licensure and are valued for their role in ensuring competency and adherence to national standards. Certification from these exams signifies that professionals have met rigorous qualifications, enhancing their credibility and professional status. Recognition of this certification by national and international bodies further validates the expertise and competency of the individuals who have passed, supporting their roles in delivering high-quality care and advancing public health initiatives.

2 The Education with Course Format and Examination Process

The course can be conducted as an intensive and recognised national Education institutes and program based on European national educations systems.

- The course can be in a full time one course, or over a few days or as a part-time course over several weeks.
 - It can be offered in both
 - Physical classroom settings
 - Online, individual and group,
 - With availability of mentor, educator or counselor.

Expert Selection for a Comprehensive Vaccination Course for Nurses

1 Basic Level

- **Immunization Specialist:** A professional with expertise in routine vaccination practices, vaccine schedules, and patient education. They should have experience in basic immunology and practical aspects of vaccine administration.
- **Clinical Nurse Educator:** An experienced nurse educator skilled in training on fundamental vaccine topics, including injection techniques and communication strategies for effective patient interactions.
- **Public Health Officer:** A specialist in public health who can provide insights into vaccination policies, program implementation, and community health impact.

2 Advanced Level

- **Infectious Disease Expert:** A (nurse) specialist in infectious diseases who can delve into the pathophysiology of vaccine-preventable diseases, advanced immunological concepts, and emerging threats.
- **Vaccine Research Scientist:** An expert involved in vaccine development and research, offering advanced knowledge on vaccine formulations, clinical trials, and cutting-edge innovations in immunization.
- **Epidemiologist:** A professional with expertise in microbiology, disease surveillance and epidemiology, focusing on vaccine efficacy, herd immunity, and the impact of vaccination on public health trends.

3 Additional Roles

- **Regulatory Affairs Specialist:** An expert in vaccine regulations and safety protocols, providing essential knowledge on vaccine approval processes and compliance with health authorities.
- **Ethics and Communication Specialist:** A professional skilled in addressing vaccine hesitancy, ethical issues, and strategies for effective patient communication.

Each expert brings a unique perspective, ensuring a well-rounded curriculum that covers fundamental knowledge and advanced topics, enhancing the overall educational experience for nurses.

Examination Process

Written exam to test theoretical knowledge

This written exam assesses participants' understanding of vaccination theory, including vaccine types, administration techniques, and public health principles. It features multiple-choice questions, short answers, and case studies to evaluate knowledge of vaccination schedules, side effects, and program management. The exam ensures participants have a solid theoretical foundation to complement their practical skills.

Practical exam where participants demonstrate competence in vaccination techniques and patient communication

This practical exam evaluates participants' proficiency in administering vaccines and effectively communicating with patients. Participants will perform various vaccination techniques, such as intramuscular and subcutaneous injections, and engage in role-playing scenarios to demonstrate their communication skills. The exam assesses their ability to apply best practices, manage patient concerns, and ensure a safe and comfortable vaccination experience.

Certification and recognition is by preference registered in a national and European institute.

THIS CURRICULUM IS CREATED WITH THE EXPERT INPUT OF:

THE NURSE PROFESSIONALS:

- Ber Oomen
- Vedrana Vejzovic
- Tihana Gašpert
- Enrique Castro Sanchez
- Rosario Caruso
- Panagiota Tsikala
- Patricia Burga
- Adriano Friganovic
- Kristian Civka

PEERGROUP INSTITUTES CONSULTED / CONTRIBUTING:

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- European Nurses Directors Association



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