AMR EDUCare

Knowledge Portal

D.7.4.

Project information

Name of the project: Education on antimicrobial resistance for the health workforce

Acronym: AMR-EDUCare

Number of the grant agreement: 101101208

Call of the action: EU4H - 2022- PJ

Topic: EU4H - 2022- PJ - 06

Starting date of the project: 01 Mar 2023

Duration of the project: 30 months

Work package:

Submission date of the deliverable:

Dissemination level:

Co-funded by the European Union

Table of content

1. Introduction

Brief overview of the AMR EDUCare project and its objectives

The AMR EDUCare project is an initiative aimed at addressing one of the most pressing challenges in contemporary healthcare: antimicrobial resistance (AMR). Antimicrobial resistance poses a significant threat to public health, leading to increased mortality rates and escalating healthcare costs. With an annual toll of over 33,000 lives lost within the European Union due to AMR-related complications, urgent action is imperative.

The project focuses on developing and implementing educational programs across the countries participating in the project: Spain, Portugal, Italy, Hungary, Greece, and Lithuania. These programs target healthcare professionals, specifically doctors, nurses, pharmacists, and healthcare management experts. The overarching goal of the AMR EDUCare project is to equip these professionals with the knowledge, skills, and strategies necessary to effectively combat the proliferation of antibiotic-resistant bacteria.

Importance of the Knowledge Portal as a resource hub

Access to accurate and up-to-date information is key for healthcare professionals to make informed decisions. The Knowledge Portal developed during the project serves as a centralized resource hub, in the area of AMR education.
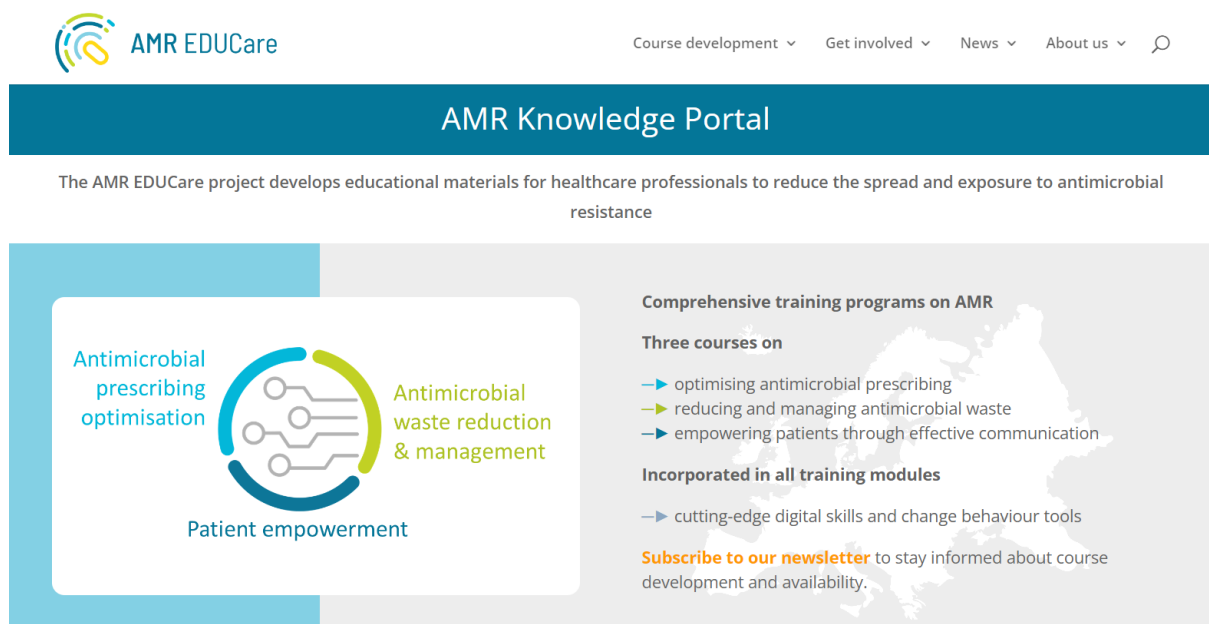
The Knowledge Portal allows professionals across participating countries to access a wealth of information. It functions as a digital repository, housing a diverse range of content, from comprehensive course materials to methodologies and analyses. The Knowledge Portal enables professionals to expand their horizons, equipping them with the tools to become agents of digital change. By facilitating access to AMR related information beyond the project's funding period, the Portal ensures the sustainability of knowledge dissemination and the continuation of the project's impact.

This platform supports not only healthcare professionals but also offers some useful information for the wider public, fostering a collective understanding of the gravity of AMR and the urgency for responsible antimicrobial use.

2. Knowledge Portal description – amreducare.eu

Important note: Courses of the AMR EDUCare project will be available by M18 of the project (September 2018), i.e. the Portal will reach full functionality after that date.

Functions and purposes of the Knowledge Portal

The Knowledge Portal of the AMR EDUCare project serves as a multifaceted platform designed to fulfill a range of functions. At its core, the Portal acts as an online repository, housing the three courses developed by the project partners as well as other resources aimed at combating antimicrobial resistance (AMR). The courses will be uploaded to the Portal in the English original version along with the reading materials and other non-interactive elements of the courses.

More specifically, the portal will cover

a) the project's mission, structure, benefits and services for health professionals and for the general public

b) the available training courses country by country

c) the training methodologies developed and applied in this project and

d) analysis of the skills developed by course participants: factors of behaviour change and digital transition

Important note: The contents of the three courses, in addition to this Knowledge Portal will also be shared on the online education platform Lecturio. On Lecturio, the courses will be available in English as well as in the languages of the six participating countries. Interactive elements of the courses, such as quizzes, will also be available on Lecturio. The access to the description of the project, public deliverables and Knowledge Portal will also be enabled through a webpage on the coordinator's website (https://noharm-europe.org/).

The Knowledge Portal is tailored to meet the information needs of the target groups of the educational courses: doctors, nurses, pharmacists, and healthcare managers.

Training courses for professional audiences

For health professionals, the Portal functions as an advanced learning center, offering three courses, methodologies, and analyses. These courses are designed to empower doctors, nurses, pharmacists, and healthcare management experts with the tools to optimize antimicrobial prescribing, reduce waste, and enhance patient communication. The methodologies section provides insights into the development of these courses, including the results of needs assessment analyses, thereby enabling healthcare professionals to engage with proven approaches.

Three core courses on AMR

The Portal presents healthcare professionals with three training courses: 1) Antimicrobial prescribing optimization, 2) Antimicrobial waste reduction & management, 3) Patient empowerment

The table below represents the three courses and their modules, also indicating the presence of digital technologies and behaviour change elements in all courses.
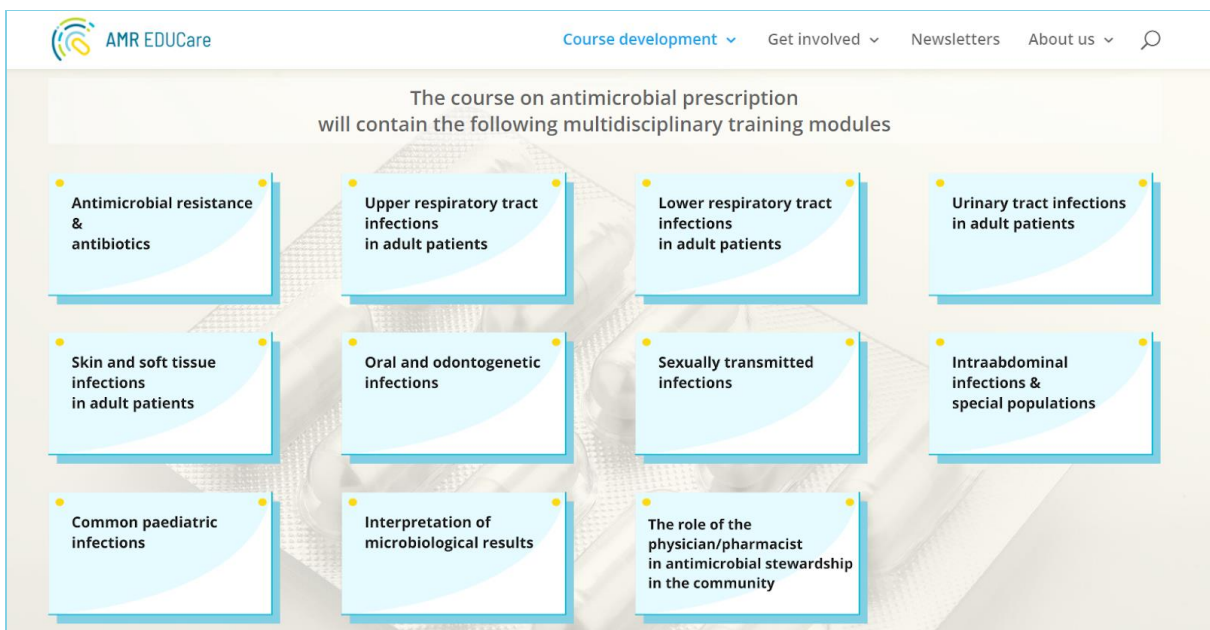
WP	Module	Titles – AMREDUCare course modules	WP5
WP2 – Antimicrobial prescription	1	Antimicrobial resistance and antibiotics	Digital Health Skills: Available technologies, state-of-the art digitalisations, technologies for health management. Behaviour change interventions.
	2	Upper respiratory tract infections in adult patients	
	3	Lower respiratory tract infections in adult patients	
	4	Urinary tract infections in adult patients	
	5	Skin and soft tissue infections in adult patients	
	6	Oral and odontogenic infections	
	7	Sexually transmitted infections	
	8	Intraabdominal infections + special populations	
	9	Common paediatric infections	
	10	Interpretation of microbiological results	
	11	The role of physicians/pharmacists in antimicrobial stewardship in the community	
	+	3 modules for nurses and 2 modules for managers	
WP3 – Waste management	1	Critical points of control for waste management	
	2	Reliable surveillance and risk assessment	
	3	Digital solutions that reduce and improve the management of antimicrobial waste	
WP4 – Patient empowerment	1	Empowerment of young adults: Communication skills for professionals (prescribers, nurses, community pharmacists)	
	2	Empowerment of the general public (including parents/representatives of pediatric patients): Communication skills for professionals (prescribers, nurses, community pharmacists)	
	3	Empowerment of the elderly: Communication skills for professionals (prescribers, nurses, community pharmacists)	

The contents of the courses are based on state-of-the-art digital training methodology, following the below structure for each module:

AMR-EDUCare Course Module content		
Check-in Orientation & guidance	• Intended learning outcomes - iLO • O: Relevance, Keywords G: Module workload in minutes, course structure
Text for reading	• Total of 1800-2500 words. In units of 3-400 words with graphics • List of references (APA7) (Glossary at course level)
Module summary infographics	• Based on nodes and relations (requested work format: mind-map) • Links and multimedia towards deeper content allowed
Text for oral presentation (video / audio)	• Input: text of max 1500 words gained from Core Text and visuals • Role of text to AI speech is OK, text to AI video is in question
Assessment Tools	• Online version + analogue version based on template • Includes tests, quizzes, games, reflection points etc
Workbook	• Offline / printable version. • Includes key slides, space for notes, transcripts, glossary, references, infographics
Check-out orientation & guidance	• Summary: Take Home Message contentwise, debriefing on iLOs

Course on antimicrobial prescription

Screenshot of the course page:

Course Vision: empower primary healthcare professionals across Europe with specialized education in the appropriate use of antimicrobials, fostering a collective effort to combat antimicrobial resistance (AMR) through modern digital educational tools.

Course Objectives:

1. Assess Learning Needs and Knowledge Gaps: Define and evaluate the learning requirements and gaps related to antimicrobial use (AMU) and AMR among primary care health professionals (doctors, nurses, pharmacists).

2. Develop Online Training Modules: Create comprehensive online training modules targeting primary care health professionals to equip them with the knowledge to combat AMR and contribute to robust health systems.

Course Achievements:

This course aims to enhance antibiotic prescription practices by conducting a thorough needs analysis among general practitioners, family doctors, and pediatricians in primary care, focusing on AMR. Leveraging this analysis, customized training materials will be developed, addressing the specific requirements of each group.

Course on antimicrobial waste reduction and management

Screenshot of the course page:

Course Vision: harness the potential of procurement and waste management as potent tools in the battle against antimicrobial resistance (AMR). Through the advocacy of sustainable practices within the healthcare sector, we aspire to minimize waste and ensure that our suppliers contribute positively to AMR reduction efforts.
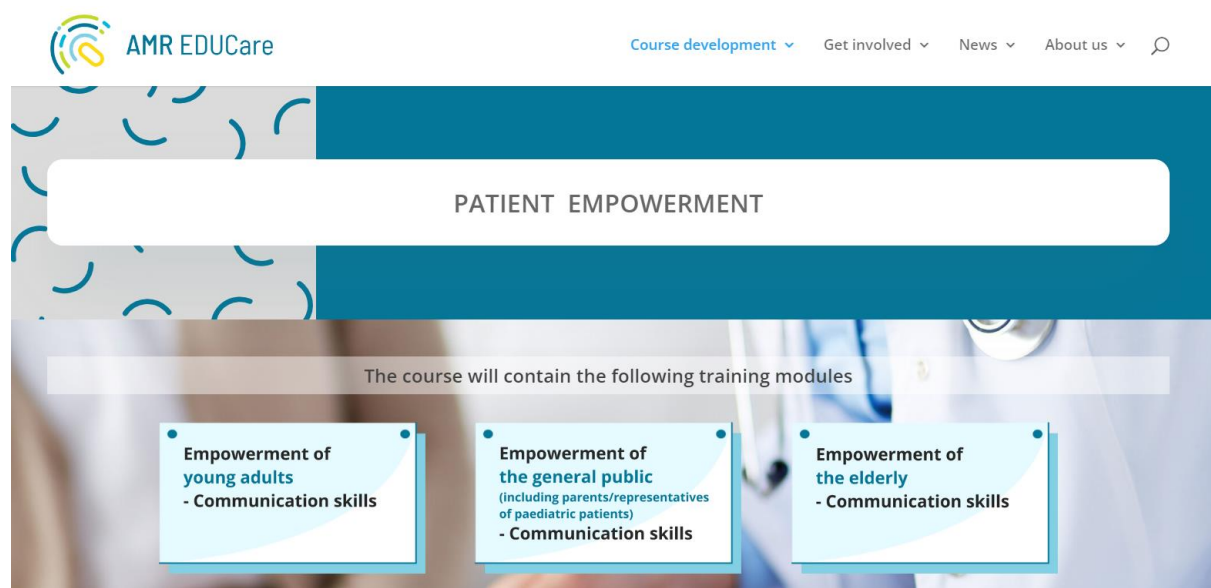
Course Objectives:

1. Reduce Antimicrobial Waste: Promote strategies and practices that lead to the reduction of antimicrobial waste in healthcare settings.

2. Emphasize Green Procurement for AMR Reduction: Raise awareness about the critical role of green procurement in curbing AMR by addressing waste-related concerns.

3. Guide Healthcare Institutions in Green Procurement: Provide comprehensive guidance to healthcare institutions on implementing environmentally responsible procurement practices.

Course Achievements:

This course strives to empower healthcare professionals and health managers with the necessary tools to identify practices within their institutions that contribute to excessive waste generation. Through the course, participants will gain valuable insights and resources to effectively address these waste-related challenges. By incorporating the principles of sustainable practices and green procurement, participants will be better equipped to mitigate AMR-related environmental impact.

Course on patient empowerment

Screenshot of the course page:

Empowering Patients for Informed Antibiotic Use

Course Vision: empower patients by enhancing their awareness and comprehension of responsible antibiotic usage and the potential consequences of misuse. Through this activity, we envisage a future where patients actively engage in their healthcare journeys, armed with the knowledge and tools to make informed choices for their well-being.

Course Objectives:

1. Enhance Healthcare Professional Communication Skills: Provide comprehensive training to healthcare professionals, enabling effective patient education across diverse age groups.

2. Inclusive Content Development: Involve both healthcare professionals and patients in creating educational content, ensuring comprehensive representation of perspectives and needs.

3. Empower Patients through Effective Communication: Empower patients from various age groups and backgrounds by offering engaging informative materials on healthcare topics.

Course Achievements:

Through targeted training modules, this course aims to equip primary care doctors, nurses, and pharmacists with the tools to effectively educate patients and antibiotic users. The focus lies on conveying key messages about AMR, the repercussions of antibiotic misuse, the impacts of mismanagement, and habits to prevent AMR infections. By bridging the communication gap between healthcare professionals and patients, this course will pave the way for informed decisions and a more health-conscious society.

Methodology materials for professional audiences

In addition to the courses described above the Course Development Methodology Handbook will be published on the Portal:

The Course Development Methodology Handbook of the AMR EDUCare project is a vital resource, ensuring consistency and quality across the three developed courses. It provides methodological insights for course development and implementation. Users of this Handbook will benefit from clear course creation guidelines, an understanding of roles and responsibilities, and familiarity with project-specific terminology. The Handbook is continually refined based on developer and user feedback, enhancing its effectiveness. Drawing on the renowned Guide of the Association for Medical Education in Europe (AMEE), the Handbook harmonizes educational methodology and technical prerequisites for training modules, aligning them with the chosen educational platform, Lecturio. This Handbook is essential in developing impactful educational materials and advancing the AMR EDUCare project's mission.

Furthermore, the following reports and informative materials of the AMR EDUCare project will be published on the Portal:

D1.1 State-of-the-art and needs analysis on AMR training in the target countries

This report presents the current gaps and needs in AMR education for the health workforce (medical doctors, nurses, pharmacists and health management professionals). The report will cover the target countries and will be produced in English.

D4.2 Informative materials for patients

D5.1 Report on IT tools for behavioral change

Report on IT tools associated with behavioural change that may be of relevance in the context of the prevention and management of AMR.

D.5.2 Recommendation on digital skills and behavioural change for AMR

D6.1 Monitoring and Evaluation Framework

The Monitoring and Evaluation Framework will define all qualitative and quantitative indicators to be used.

D6.2 Co-Created WP-specific Impact Cases

Result-oriented analysis and real-time feedback to ensure Project's activities will meet the expected impacts stated in the Call.

D6.3 Competencies Framework

The Competencies Framework developed is based on inputs from WP2-WP4, the seven ECDC knowledge questions on AMR and the WHO's Competency Framework on AMR.

D6.4 Final evaluation report (Assessment of competencies)

The Final evaluation report will include an assessment of the competencies gained in each training module/WP.

D7.1 Communication and dissemination plan

The plan is to present: a) key stakeholders of the project at EU level and in the target countries, b) overarching messaging, c) messaging structure for main communication channels in Task 7.6 and related KPIs, d) synergies and cooperation opportunities with projects of similar or complementary

profiles, e) visual identity of the project, including logo and templates for all communication channels and materials

D7.2 Project leaflet

A project leaflet outlining objectives, expected outcomes, key activities and consortium composition will be drafted and published in digital format. It will support project dissemination and replication efforts.

D7.3 Final dissemination report

A final dissemination report outlining the reach of communication efforts will be drafted in English.

Digital skills development and behaviour change for course participants

The Digital skills and behaviour change page of the Knowledge Portal will contribute to the project's mission to improve healthcare practices in the battle against antimicrobial resistance (AMR). Our objective is to equip healthcare professionals with advanced digital skills and effective behaviour change strategies that will shape the future of healthcare under the leadership of Work Package 5. (See www.amreducare.eu/digital-health-skills)

This page will serve as a comprehensive resource hub, providing access to valuable information, resources, and tools related to digital skills enhancement and behaviour change strategies. From informative materials on technological advancements to insights into effective behaviour modification tactics, this page will empower healthcare professionals to stay at the forefront of their field. As technology and healthcare intertwine more closely, this integration will prove invaluable in the collective effort to combat AMR and improve patient care.

Target groups of the website: medical doctors/prescribers, pharmacists, nurses and health management

Disclaimer:

The website includes the mandatory identification elements, the European flag (emblem), funding statement and disclaimer.