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## Session 4 - Recherche en service de santé et science de l'implémentation

### CO4.1 - Enhancing antimicrobial stewardship implementation in nursing homes: ORANEAT participatory approach to develop implementation strategies tailored to the context

*Faciliter la mise en œuvre d'un programme de bon usage des antibiotiques en Ehpad : une approche participative pour développer des stratégies d'implémentation adaptées au contexte, dans le cadre du programme ORANEAT*

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**Background and objective(s):** Antimicrobial resistance (AMR) is among the top 10 global health threats, particularly in nursing homes (NHs). Antimicrobial stewardship (AMS) programs (i.e., a coherent set of actions which promote using antimicrobials responsibly) have shown effective in various healthcare settings. However, evidence from NHs reveals inconsistent results and low implementation success due to the specific challenges posed by resident characteristics and organizational factors. The methods used so far to develop implementation strategies for AMS programs in NHs appear to have yielded rather poor and ineffective results. As part of ORANEAT project, whose overarching goal is to develop and evaluate a customizable AMS program for French NHs, we proposed a participatory approach to develop implementation strategies tailored to the context thereby maximizing the chances of implementation. The aim of the present communication is to describe this innovative participative approach.

**Material and Methods:** We set up an advisory committee (AC) gathering main NH AMS stakeholders (n=24) selected from the two regions participating in ORANEAT: NH directors, coordinating physicians and nurses, assistant nurses, residents' representatives, general practitioners, community pharmacists and microbiologists, and AMS specialists. The resulting AC then participated in a four-step "World Café": (i) identifying key stakeholders to be involved in the program implementation; (ii) brainstorming to generate implementation strategies; (iii) prioritizing the resulting strategies according to their potential value and feasibility; (iv) operationalizing the prioritized implementation strategies.

**Results:** During a first online meeting, AC mapped the stakeholders and their potential influence on adoption and/or implementation of ORANEAT AMS program. Overall, we identified 12 stakeholders from inner NH setting and 12 stakeholders from outer setting. A second onsite meeting resulted in the generation of 135 implementation strategies: 57 generic strategies (i.e., related to overall ORANEAT AMS program), and 78 specific strategies relating to one of ORANEAT program components. Among these specific implementation strategies, 17 related to contextual diagnosis and 61 to AMS actions as defined by the Centers for Disease Control and Prevention, i.e., "practices to improve antibiotic use" (n=27), "accountability" (n=3), "education (training and awareness-raising)" (n=31). During the third online meeting, 16/57 generic strategies were prioritized and grouped in 5 categories adapted from the Expert Recommendations for Implementing Change project: adapt implementation to the NH context (n=2); inform, engage, and train all stakeholders concerned (n=4); develop stakeholder interrelationships (n=3); organize implementation monitoring (n=2); create supportive environments (n=5). AC also provided insights on how to implement each of the

prioritized implementation strategies (e.g., format, content, timing, stakeholders).

**Conclusion:** This participatory approach resulted in implementation strategies to be tested using a hybrid randomized controlled trial, and further refined if necessary, before considering scaling-up of ORANEAT program. The method used to develop these implementation strategies could be useful in other complex intervention development settings.

**Keywords:** Nursing homes, Antimicrobial stewardship, Implementation strategies, Participatory research

**Declaration of interest** The author(s) have no conflict of interest or disclosures related to the study.

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### CO4.2 - Typologie of methods for analysing healthcare trajectories: results of a scoping review

*Typologie des méthodes d'analyse des trajectoires de soins : résultats d'une scoping review*

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**Background and objective(s):** A healthcare trajectory refers to a sequence of observed episodes of care, which the analysis allows for a longitudinal and dynamic description of a patient's healthcare path and helps to understand the spatio-temporal heterogeneity of care. Various techniques exist for analyzing healthcare trajectories, yet no comprehensive methodological framework has been established to guide users in selecting the appropriate method. To develop such a framework, the first step was to compile the different methods used for healthcare trajectory analysis and to describe the contexts in which these methods are applied.

**Material and Methods:** A scoping review was conducted following PRISMA guidelines to catalog and describe the methods for analyzing healthcare trajectories. This was achieved by combining three sources: a systematic review of trajectory analysis tools published between 2000 and 2015 (Pinaire et al.), a complementary literature review in PubMed and Scopus covering the period from 2015 to 2023, and expert interviews. The search scope was international, encompassing all diseases.

**Results:** Eighteen generic statistical techniques were identified and categorized into seven main groups: (1) traditional static methods, (2) traditional longitudinal methods, (3) detailed trajectory breakdowns, (4) visualization techniques, (5) cluster analysis, (6) medical information technology, and (7) quality methods. A descriptive analysis of the contexts in which these methods were applied revealed that the choice of technique depended on several factors: the role of the care trajectory in the analysis (descriptive, explanatory, or outcome-based) and the objectives of the research (to create, prioritize, or understand the pathway). Additionally, the variability in techniques was influenced by factors such as the study period, geographical location, and data accessibility.

**Conclusion:** This work has led to the identification of a typology of methods for analyzing healthcare pathways. The next step will involve defining the indications for each method through expert consensus. This will result in an innovative, generic methodological framework for analyzing healthcare trajectories, applicable to any