

Procurement for health managers: Co-creation of innovative digital healthcare solutions

Webinar Report

Date: 16/05/2023

Time: 11.00 – 11.50 CET

Speakers: Sofía Moreno Pérez and Olman Elizondo

The sixth and final webinar of our procurement series for health managers was dedicated to the role of public procurement of innovation in addressing current health challenges, such as the treatment of patients using or in need of an implantable pacemaker, and effective infection control systems for antimicrobial resistance. This webinar featured Sofía Moreno Pérez, Procurement Coordinator for the RITMOCORE project, and Olman Elizondo, Health Innovation Project Manager at AQuAS (Agency of Health Quality and Assessment of Catalonia) and member of the RaDAR Coordination team.

The speakers introduced their respective projects, RITMOCORE and RaDAR, and talked about how innovations procured by healthcare providers can help address existing healthcare challenges and discussed the role of co-creation in public procurement of innovation, stakeholder involvement, outcome-based procedures, impact evaluation, and challenges. Lastly, they explained the differences between joint procurement and collaborative procurement.

Projects overview

RITMOCORE

RITMOCORE started in 2016 and concluded in 2022 and stands as one of the lengthiest projects under the Horizon 2020. The project involved four hospital procurers, with Hospital Sant Pau in Barcelona serving as the lead procurer.

The primary issue addressed by RITMOCORE pertained to the **growing demand for pacemakers** among patients, while the resources required to meet this demand such as devices and clinical availability were not increasing at the same pace. In response to this challenge, many countries have resorted to consolidating their purchases to acquire more affordable devices. However, this approach has led to undesirable consequences, such as misalignment of interests among the various stakeholders involved in the patient's care pathway.

The central objective of RITMOCORE was to **enhance efficiency** by introducing **innovative pacemakers** with advanced technological improvements that could be utilised beyond the confines of hospitals. It was in the best interest of all stakeholders to undergo a paradigm shift, transitioning from a hospital-centric approach to a patient-centered care service, wherein the relationship with the supplier evolved into a partnership.

RaDAR

RaDAR, which stands for "rapid detection of antimicrobial resistance," is a collaborative initiative involving professionals and institutions striving to find innovative solutions for a pressing global issue: **antimicrobial resistance (AMR)**. In 2019 alone, bacterial AMR contributed to the deaths of 4.95 million

individuals worldwide, with 1.27 million directly attributed to AMR. It is projected that by 2050, AMR-related deaths will surpass those caused by cancer. Additionally, AMR poses a significant economic burden, costing the EU 1.5 billion euros annually and resulting in productivity losses. AMR also diminishes the effectiveness of currently available treatments.

Efforts are underway globally, including the **European One Health Action Plan** against AMR, to address the AMR problem through joint action. These initiatives have helped identify responses to this global challenge, such as enhancing early detection systems to ensure high-quality care processes, screening for drug resistance and virulence to improve treatment effectiveness, reducing healthcare and governmental costs, and establishing robust reporting and communication systems to enhance system resilience.

RaDAR emerged from Anti-Superbugs, a pre-commercial procurement (PCP) project that aimed to enhance the appropriateness of antibiotic usage and mitigate the impact of hospital-acquired infections. Building upon this foundation, the RaDAR project seeks to expand and leverage the outcomes, involving new procurement organisations and establishing a distinct consortium focused on the **Pre-Commercial Procurement (PPI)** process. They are also exploring new reimbursement models that incorporate value-based elements. The consortium comprises a total of nine entities.

The collaborative cross-border procurement model adopted by RaDAR enables stakeholders to collectively define the clinical demands associated with the global AMR problem. However, **local elements** still influence the clinical perspective. By working collaboratively, the consortium aims to identify both common elements and specific peculiarities that each buyer may possess. Through engagement with the industry, RaDAR seeks to understand the existing market landscape in terms of **providing similar solutions to address the unmet need**. This interaction with the industry will lead to distinct tendering processes, as each locality has its own unique legal procurement framework, facilitating the signing of contracts. Ultimately, four economic consortia will be responsible for executing the contracts during the designated period. The collaborative approach taken by RaDAR is also generating valuable evidence in the process.

The importance of co-creation and public procurement innovation

Two distinct co-creation processes can be identified in both projects. The first process pertains to the project's **preparatory stage**, where adaptation to the typical practices of clinicians is crucial, considering their time constraints and individual perspectives. At the outset, establishing a project vision and defining key pillars (such as remote monitoring, change management, personalised therapy, and risk sharing) is necessary. Tools like the patient journey were employed to facilitate this process. It is noteworthy that the co-creation process allowed clinicians to gradually gain empowerment in shaping the project's vision and scope. The involvement of various individuals and stakeholders, including coordinated care, primary care, and supplier intervention, was integral to this process.

The second area of co-creation involves **collaboration between service providers and hospitals** focusing on closing the governance gaps and addressing specific details.

The co-creation process involving clinicians, as well as the collaboration between the demand and supply sides, has been immensely successful. It not only convinced clinicians but also empowered them to engage in more ambitious thinking.

Stakeholders involved in the projects

When embarking on a Pre-Commercial Procurement (PPI) project, it is essential to consider the varying levels of maturity in terms of procurement and innovation deployment. It requires a **gradual approach**,

carefully selecting the right individuals at the appropriate stages. Take, for instance, the RaDAR project, which involves a highly specialised microbiological topic with significant clinical implications across various services. The aim is to control and mitigate an outbreak that poses a risk to the entire healthcare system, necessitating coordination among different stakeholders. It is crucial to prepare and engage these stakeholders, allowing them to contribute their perspectives and ideas. The involvement begins with biologists and extends to clinicians while taking into account all the elements along the patient journey.

Since it is a procurement process, a **call for tender** must be incorporated. The procurement process becomes an opportunity to transform the healthcare system rather than simply finding solutions for unmet needs. While some helpful interventions have been made, they have not fully resolved the problem at hand. Therefore, the focus should be on **identifying the needs first**, and then engaging stakeholders who can provide support. Collaborative work with these stakeholders is essential for successful deployment and execution.

Outcome-based payment model and measurement of impact

The **risk-sharing** aspect emerged as the most innovative pillar of RITMOCORE. Several elements distinguished RITMOCORE's business approach from others. Firstly, it shifted the focus from purchasing devices to **procuring a service**. Additionally, instead of solely paying for the devices themselves, RITMOCORE adopted a model where the payment was based on the population served. Moreover, the project introduced the concept of **risk-sharing** in cases where complications arise, such as infections requiring pacemaker replacements. This poses financial implications for hospitals and potential dangers for patients. As a result, 5% of the overall budget was allocated for **outcome-based payments**. The objective was to establish a partnership, with key performance indicators (KPIs) defined in a manner that allowed the supplier to receive the designated 5%. This approach fostered alignment between stakeholders. Accurately defining the KPIs was of utmost importance, achieved through close collaboration with clinicians to identify KPIs that effectively measure the responsibilities of both the supplier and the healthcare system, with assigned levels of responsibility (low, medium, high) which is shown on the slide below.

The RITMOCORE PPI purchasing model

From a purchasing model based on price and payment per device to a **risk sharing model** based on **comprehensive services, quality performance based payment and capitation fee.**

Activity fluctuation

Graphical representation of the economical offer and absorption indexes of activity changes

5% of annual **Payment-for-quality-performance** indicators achievements

PERSONALISED THERAPY

- Therapy indication (including leadless pacemakers)
- App for patients
- Expert patient Program
- Perceived quality survey
- Waiting time until implantation (inpatient and outpatient)
- Procedure quality (complications, mortality and infections)

REMOTE MONITORING

- Remote follow-up capabilities: early detection of events, alignment, remote-on site follow-up!

CARE COORDINATION

- Integrated follow-up with Primary Care

PATIENT EMPOWERMENT

A **fixed rate for a given population**, the service supplier guarantees the provision of services for a certain level of annual activity which can fluctuate within agreed margins

This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 727796

RITMOCORE

RITMOCORE was closely linked to the service provider, and its progress was regularly measured on a quarterly basis.

In the outcome-based procedure within RaDAR, there are five distinct levels of understanding regarding the demand side. These levels encompass the patient, healthcare professionals, healthcare providers, the healthcare system, and society as a whole. Each buyer involved in the project assesses the significance of expected results based on their specific procurement requirements. By **leveraging the collective knowledge** gained from the project and incorporating insights from diverse stakeholders, the learning process for new procurers, institutions, and professionals is enhanced. This enables the sharing of valuable lessons learned and ultimately improves the outcomes of the procurement within the innovation process.

Major Achievements

- ✓ Excellent emergency response
- ✓ High rate detection of atrial fibrillation episodes => Stroke prevention
- ✓ Pacemakers specific IT System supporting KPIs follow-up, global control panel & alert activation

ACHIEVEMENTS 2021	HOSPITAL DE LA SANTA CREU I SANT POU UNIVERSITAT DE BARCELONA	Estimated by Publications
Major Complications at 90 days	1.4%	4.5%
Deaths related to Pacemakers	0%	1%
Recolocations	1.1%	2%
Infections	0.3%	0.8 – 1%
Pneumothorax	0%	1%
Perforations	0%	1%
Hematoma*	0%	1%
Pacients in Remote Monitoring	90% of first implants	
Waiting time for implants	87% less than 2 days	

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RITMOCORE

In terms of impact measurement, various factors such as **reductions in mortality rates** and **waiting times** are taken into account. Additionally, the patient experience is given due consideration. The measurement of impact primarily focuses on long-term results and procurement innovations primarily address unmet needs, necessitating close collaboration among diverse stakeholders from different fields.

Conclusion

Projects like RITMOCORE and RaDAR showed the importance of collaboration, stakeholder engagement, and co-creation. Global challenges like the fight against AMR need a collective approach but it is essential to acknowledge and consider the local characteristics associated with it. Eventually, collaborative procurement and joint procurement have their differences and yet, they are both very effective methods. They generate solutions together through sharing knowledge and expertise and through transforming processes to, for instance, procure lower prices for already existing solutions.