

OP64 Economic Impact Of Cardiac Device Remote Monitoring In South Korea

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INTRODUCTION:

The reduction of healthcare costs and societal cost due to remote monitoring (RM) of cardiac implantable electronic devices (CIEDs) has been demonstrated in several countries; however, to the best of our knowledge it does not exist for South Korea. This work aims at providing an estimation of the potential benefit of RM versus standard care (SC) of CIEDs in term of healthcare costs in South Korea, in order to provide additional substance to the currently ongoing societal debate about the value of telemedicine.

METHODS:

Healthcare resource consumption was taken from the results of the TARIFF study, a prospective, non-randomized, multicenter clinical trial designed in Italy to assess the economic benefits of RM follow-up in comparison with standard follow-up in 209 patients (107 SC, 102 RM). The main results demonstrated that RM reduced healthcare resource consumption by 54 percent from a healthcare services perspective (SC: EUR1,044.89±1,990.47 versus RM: EUR482.87±2488.10, $p < .0001$ (1)).

In order to perform a cost analysis from the perspective of the South Korean healthcare payer, the following unit costs were assigned to resources collected in TARIFF (hospitalizations, visits, examinations): fee-for-service tariffs, emergency tariffs and outpatient tariffs. Remote follow-up costs were considered as zero.

RESULTS:

From the perspective of the South Korean healthcare payer, the overall mean annual cost/patient in the RM group is 53 percent lower than in SC group (SC:

EUR405,439±40,135 versus RM: EUR189,96±725,52, $p < .0001$) (SC: KRW 497,145±49,2137 versus RM: KRW 232,936±890,181, $p < .0001$). This is mainly due to a significant cost reduction in device-related hospitalizations, examination tests and visits in the follow-up period.

CONCLUSIONS:

RM of CIED patients is cost-saving from the perspective of the South Korean healthcare system. Introducing appropriate reimbursement for remote monitoring of CIED is not likely to change this result and should make RM sustainable for the provider and encourage widespread adoption of RM.

REFERENCE:

1. Ricci RP, Vicentini A, D'Onofrio A, et al. Economic analysis of remote monitoring of cardiac implantable electronic devices: Results of the Health Economics Evaluation Registry for Remote Follow-up (TARIFF) study. *Heart Rhythm*. 2017;14(1):50–7.

OP67 Cost-Effectiveness of Human Papillomavirus-based Primary Cervical Screening In Ireland

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INTRODUCTION:

The cost-effectiveness of Human papillomavirus (HPV)-based primary cervical screening in the Irish healthcare setting is assessed using a decision-analysis approach to inform a decision around changes to the national screening program. Current practices comprises primary screening with liquid-based cytology (LBC) followed by HPV triage, at 3-yearly intervals for ages 25 to 45 years and 5-yearly until age 60 years.

METHODS:

This study assessed changing the primary screening test from LBC to HPV testing, in both an unvaccinated and a vaccinated (against HPV 16/18) cohort. It considered extending the screening interval (to 5-yearly for all), the upper age limit (from 60 to 65 years) and different test sequences (four possible tests were included: HPV, LBC, partial genotyping for HPV16 or HPV 18 and the molecular biomarker p16^{INK4a}/Ki67). A Markov-model for HPV-infection and cervical cancer was developed based on a German cervical screening model (1). The perspective of the healthcare system was adopted and a 5 percent discount rate used.

RESULTS:

Strategies using HPV as the primary screening test are more effective than LBC-based strategies. The optimal strategy, at a willingness-to-pay threshold of EUR45,000 per quality-adjusted life year (QALY), for the unvaccinated cohort was HPV-based primary screening with a LBC triage test, at five-yearly intervals from age 25 to 60 years. This strategy is cost saving compared with current practice and cost effective when compared to no screening, with an Incremental cost-effectiveness ratio (ICER) of EUR18,164 per QALY. The optimal strategy for the vaccinated cohort was also HPV primary screening with a LBC triage test, at five-yearly intervals from age 25 to 60 years. While more effective and cost saving compared with current practice, it would not be considered cost effective compared with no screening (ICER of EUR58,745/QALY).

CONCLUSIONS:

Based on our analyses, HPV-based cervical screening is more effective and cost saving compared with LBC-based screening for both vaccinated and unvaccinated cohorts in an Irish setting.

REFERENCE:

1. Sroczynski G, Schnell-Inderst P, Muhlberger N, et al. Cost-effectiveness of primary HPV screening for cervical cancer in Germany - A decision analysis. *Eur J Cancer*. 2011;47:1633-46.

OP68 An Evidence-Based Clinical Pathways Program Reduces Low-Value Care

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INTRODUCTION:

Misdiagnosis of asymptomatic bacteriuria as catheter-associated urinary tract infection (CAUTI) leads to unnecessary tests and other low-value care. We used this topic as the prototype to develop a clinical pathways program to promote evidence-based decision making in a multi-hospital system.

METHODS:

We convened a task force including hospital and critical care physicians, nurses, laboratory staff, and informatics specialists. Our Health Technology Assessment (HTA) center completed a rapid systematic review on guidelines and algorithms for diagnosing CAUTI. Additional rapid reviews were completed as necessary to address specific follow-up questions. A draft pathway based on the guidelines was developed, and then the task force edited it in an iterative process.

We used the Dorsata platform (Dorsata Inc., Washington, DC) to create, distribute and maintain the pathway. Dorsata has both desktop and mobile interfaces that guide clinicians through decision algorithms. Individual pathways include links to references and a portal for direct user feedback. Pathway owners have access to a real-time pathway utilization dashboard.

A standardized order set with the pathway was added to our electronic health record system. We also held educational meetings for residents and provided "huddle sheets" to nurse educators at each hospital. Posters and computer screen savers were also used to raise awareness of the new pathway.