

INTRODUCTION:

Within the local context in Montréal, the elderly population makes up more than 50% of patient hours in emergency department. To meet ministerial targets for length of stay, our health technology assessment unit was requested to conduct an umbrella review to evaluate interventions aimed at reducing health care services use for this population. Within that context, our unit was asked to further evaluate the efficacy of advance practice nurse (APN)-led interventions. The objective of this rapid response was to summarize the scientific literature for APN-led interventions on hospital services use.

METHODS:

An umbrella review using the PRISMA statement was conducted to review the scientific literature. Systematic searches were conducted in five databases, along with a grey literature search. Two reviewers performed the study selection, quality assessment using the ROBIS, and data extraction. The primary studies within the selected systematic reviews were extracted by two reviewers and a meta-analysis was conducted to analyze the efficacy of APN-involved in discharge planning and transitional care.

RESULTS:

From the twenty-seven systematic reviews identified in the literature search, four reported data on APN-led interventions. In all, sixteen primary studies were included in the four systematic reviews. While most studies focused on transitional care, there was heterogeneity in the components of the interventions implemented. At six months post-discharge, a reduction of forty-one percent in relative risk of readmission was observed with APN-led discharge planning and transitional care with patient education, follow-up and services coordination. Studies with fewer components reported less significant results than studies with comprehensive discharge planning and transitional care. The few APN-led primary care studies identified in the systematic reviews reported inconsistent results.

CONCLUSIONS:

APN-led comprehensive discharge planning and transitional care can reduce hospital readmission rate. Several components were identified and should be considered in the discharge planning and transitional care.

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OP43 Robotic Or Conventional Gait Training Rehabilitation? A Health Technology Assessment Study

AUTHORS:

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INTRODUCTION:

The purpose of this study is to gather evidence on safety and overall effectiveness of three alternative technologies for gait rehabilitation in diplegic children with Cerebral Palsy: robotic, conventional and joint conventional and robotic gait training.

METHODS:

A new methodology, decision-oriented health technology assessment (DoHTA), was applied to assess the technology on clinical, technical, organizational, economic, social and ethical, legal and safety domains. This method, conceived as a hospital-based HTA tool for supporting the introduction of innovative technologies, has been implemented merging the EUnetHTA Core Model® with the Multi-Criteria Decision Analysis. In particular, the general items of the EUnetHTA Core Model® are re-formulated as performance indicators and replaced along a decision tree structure that, from the one hand, respects the original top-down design of the EUnetHTA model (growing level of detail from domains to issues) and, from the other hand, allows obtaining a quantitative evaluation of each identified performance indicator.

RESULTS:

The multiple indicators, which have been identified for the seven domains, play important and different roles in the alternative technologies evaluation. DoHTA results showed that robotic system offers the possibility to control more accurately the exerted forces and movement trajectories than the traditional therapy. It gives the possibility to measure the task performances parameters and to receive the patient feedback simultaneously. To carry out robotic gait rehabilitation fewer therapists are required compared with the conventional therapy, resulting in lower therapists' physical workload.

CONCLUSIONS:

Despite the great perspectives that robotics offer to motor rehabilitation, it seems that robotic gait training could not provide greater benefits in terms of motor and functional recovery compared to the conventional therapy. Preliminary results, supported by most recent literature evidence, lead to the hypothesis that joint use of robotic and conventional therapy can produce better clinical outcomes than the separate use of the two rehabilitation techniques.

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OP44 HTA Of 3D Videolaparoscopy: Follow-up 12 Months After Introduction

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INTRODUCTION:

In 2016, a health technology assessment (HTA) was conducted to gather evidence on the safety and overall effectiveness of performing laparoscopic surgery by using 3D videolaparoscopy (3DVL) versus 2D videolaparoscopy (2DVL) display systems in a variety of pediatric surgical procedures in order to efficiently support the final investment decision on video system to be acquired. Results showed that 3DVL might be a good alternative to 2DVL. Moreover, sensitivity analysis has also confirmed that the results associated to the best technology (3DVL) are robust; this has led to a confident decision for recommending it in Bambino Gesù Children's Hospital (OPBG). The objective of this work is to evaluate the impact of 3DVL within the hospital setting after 12 months its introduction in clinical practice.

METHODS:

After 12 months since the technology's introduction, clinical data, identified in previous HTA study, were extracted from surgery registries; data concerning the number of surgeries, duration of intervention, blood loss and surgery complications were analyzed. Statistical analyses on these data, between pre and post 3D system implementation period were carried out.

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RESULTS:

Results confirmed the 2016 HTA results, highlighting clinical advantages identified a priori. The percentage of the number of laparoscopic procedures significantly increased from 12 percent in pre-3D system installation period to the 20 percent in post 3D system installation ($p=7,35E-6$). No statistical differences in length of hospital stay, operative time, incidence of perioperative blood loss and surgery complication, between pre- and post- 3D installation period were identified.

CONCLUSIONS:

This study highlighted the importance of a HTA process before the acquisition of a technology for which the investment decision is not obvious, because benefits and drawbacks of the new technology are unclear. Preliminary results showed that 3D video laparoscopy system seems to be better than the 2D laparoscopy system. However, more data has to be examined to be able to establish the final judgement.

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OP45 HTA Of A Pediatric Biplanar Low-Dose X-Ray Imaging System

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INTRODUCTION:

Patients with adolescent idiopathic scoliosis frequently receive X-ray imaging at diagnosis and subsequent follow monitoring. To achieve the ALARA concept of radiation dose, a biplanar low-dose X-ray system (BLDS) has been proposed. The aim of the study is to gather evidence on safety, accuracy and overall effectiveness of a BLDS compared with CT scanning, in a pediatric population, in order to support the final decision on possible acquisition of such innovative diagnostic system.

METHODS:

The new method Decision-oriented HTA (DoHTA) was applied to carefully assess the diagnostic technology. It was developed starting from the EUnetHTA Core Model® integrated with the analytic hierarchy process in