

## 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

order to identify all the relevant assessment aspects of the technology involved, identified from scientific literature, experts' judgments and specific context analysis of Bambino Gesù Children's Hospital. A weight was associated to each assessment element and the alternatives' ranking was defined.

**RESULTS:**

This innovative system provides orthopedic images in standing or sitting position, being able to examine the spine and lower limbs under normal weight-bearing conditions. This system is recommended for particular clinical indications as scoliosis and other congenital deformities of the spine. It is able to acquire simultaneous posteroanterior and lateral images in a single scan without vertical distortion and with lower radiation exposure than CT scanning. 2D images acquired can be combined to obtain a 3D reconstruction scanning based on a semi-automated statistical model.

**CONCLUSIONS:**

The major advantages of BLDS are the relatively low dose of radiation and the possibility of obtaining a 3D reconstruction of the bones. Our preliminary results show that data on the clinical effectiveness are limited but the technical advancements of BLDS appear promising in terms of patient management and patient health outcomes associated with its use.

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## OP46 Redefining Mental Health Services For Youth: Evidence To Action

**AUTHORS:**

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**INTRODUCTION:**

Current organization of mental health services in Canada imposes a rupture during youth transition to adulthood, when severe mental health disorders start appearing. This can have a major impact on youth recovery and social integration. A health technology assessment (HTA) was initiated to evaluate the efficacy of programs that simultaneously target adolescents and young adults to support decision making.

**METHODS:**

A systematic review of systematic reviews was conducted. Four databases were searched (MEDLINE, Embase, Applied Social Sciences Index and Abstracts, and CINAHL) for articles published between 2000 and 2017. Article selection and quality assessment (ROBIS tool) were performed and inter-rater agreement was measured. To be included, the systematic review had to study specialized models or programs serving both adolescents and young adults. An analytical framework was constructed based on the categorization of performance measures for early intervention and the five dimensions of recovery. Group and individual interviews were conducted to collect contextual and experiential data.

**RESULTS:**

A total of 1,054 references were identified. After applying the selection criteria, five systematic reviews were selected. The majority of programs identified were developed for early psychosis. This HTA did not identify specialized programs for other types of mental illness or at-risk youth. Evidence on early interventions for psychosis is emerging in regards to their efficacy in improving functional and clinical recovery. However, evidence has yet to be established for their impact on access. Contextual and experiential data from our organization validated and completed the scientific findings. Facilitating and constraining factors in the implementation of a person-centered care model and inter-agency collaboration were identified.

**CONCLUSIONS:**

Services targeting at-risk youth should be developed as part of a continuum of care that is adapted to clinical stages so that all youths living with psychological distress can be treated, regardless of diagnosis or age. These services may draw inspiration from models of early intervention for psychosis. Recommendations from this HTA are currently being put into action in the West Island of Montreal.

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## OP48 A Contextual Model For Evaluating The Value Of Multi-Indication Drugs

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