substantial benefits including better care, improved safety issues and decreased healthcare costs (1). It is also associated with significant costs and large technical and organizational impacts, therefore it is important to conduct comprehensive evaluations of healthcare delivery outcomes. The purpose of the study is to gather evidence on safety and overall effectiveness of EHR implementation in Bambino Gesù Children's Hospital (OPBG).

#### **METHODS:**

Decision-oriented HTA (DoHTA) method (2) was applied to assess the technology on clinical, technical, organizational, economic, legal, ethical and safety domains. It's a new implementation of the European Network for Health Technology Assessment (EUnetHTA) CoreModel integrated with the Analytic Hierarchy Process. It allows defining an evaluation structure represented by a hierarchical decision tree filled by indicators of technology's performances, each of which was given a weight proportional to the impact that this criterion provides to achieve the purpose of the decision problem; finally, the alternatives' ranking was defined.

#### **RESULTS:**

The multidisciplinary assessment took into consideration all of the aspects and recommendations about the benefits and disadvantages of EHR (3). The synthesis of scientific evidence integrated with results of the specific context analysis, resulted in the definition of components of the decisional hierarchy structure. In particular, EHR seems to offer many benefits in terms of safety and clinical effectiveness such as improved continuity and quality of care, and increased accessibility of the data. The implementation of EHR resulted in important organizational outcome such as EHR configuration, learning curve and training. For these reasons, the usability was the main technical characteristics of the technology taken into account. Finally, legal aspects on privacy and security of data, covered a key role in the assessment.

### **CONCLUSIONS:**

A thorough evaluation of the EHR before its implementation has permitted hospital's decision makers to choose knowingly.

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# VP148 Health Technology Assessment Of Femtosecond Laser: A New Frontier In Cataract Surgery

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#### **INTRODUCTION:**

Cataract surgery is one of the most frequent ophthalmological surgical procedures performed in children. However, clinical outcomes in younger patients are generally unpredictable. Currently, cataract surgery can be performed through the traditional phacoemulsification ultrasound probe or Femtosecond Laser (1). The aim of this study is to describe the application of Decision-oriented Health Technology Assessment (HTA) (DoHTA) to assess the femtosecond laser-assisted cataract surgery (FLACS) compared to conventional cataract surgery (CCS).

## **METHODS:**

To evaluate safety, costs, organizational aspects, effectiveness and technical characteristics of FLACS compared with CCS, a DoHTA method was applied (2). DoHTA is a new implementation of the European

Network For HTA (EUnetHTA) Core Model®, which integrates the Multi-Criteria Decision Analysis (MCDA) using the Analytic Hierarchy Process (AHP). All the relevant assessment aspects of FLACS are summarized in a hierarchical decision tree by means of Key Performance Indicators (KPI), subsequently weighted through pairwise comparisons. Lastly, FLACS and CCS were ranked against lowest indicators of decision tree.

#### **RESULTS:**

The multidisciplinary assessment took into consideration all the aspects and recommendations about the benefits and disadvantages of FLACS compared to CCS. DoHTA results showed that FLACS surgery is safe and effective for pediatric patients. Furthermore, FLACS seems to overcome CCS with several important developments such as increased precision of anterior capsulotomy, reduced ultrasound power requirement during phacoemulsification, decreased collateral tissue damage, increased accuracy and consistency in surgical results as well as better visual outcomes. Notwithstanding such clinical improvements, FLACS is more expensive than its comparator.

#### **CONCLUSIONS:**

The DoHTA results integrated the evidence from the scientific literature (which is still limited) with experts judgments. Indeed, although FLACS had the highest purchase price, DoHTA results showed that FL improves the quality of cataract surgery. Based on our results and taking into consideration the positive safety and clinical effectiveness features, we conclude that FLACS may be a good alternative to CCS.

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# VP149 Sustained Low Efficiency Dialysis (SLED): A Rapid Review.

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#### **INTRODUCTION:**

This rapid review aimed to determine the effectiveness of Sustained Low Efficiency Dialysis (SLED) when compared to Continuous Renal Replacement Therapy (CRRT) and Continuous Veno-Venous Hemofiltration (CVVH) in the treatment of acute renal failure (ARF) with a view to implementing SLED in a tertiary hospital in 2014.

#### **METHODS:**

A rapid review was performed on the effect of SLED for patients with ARF compared with CRRT or CVVH. The outcomes of interest were mortality, hemodynamic stability, reduced utilization of intensive care unit (ICU) and cost-effectiveness. The search terms ("sustained low-efficiency dialysis[MESH]") were used to search PubMed, the Cochrane Library, UK NHS Centre for Reviews and Dissemination databases and the US National Guidelines Clearinghouse for relevant articles until 2014.

#### **RESULTS:**

Four observational and two randomized controlled trial (RCT) studies were found. The results showed that 90-day mortality, was similar between groups (SLED: 49.6 percent versus CVVH: 55.6 percent, p = .43). Hemodynamic stability did not differ between SLED and CVVH and between SLED and CRRT. Patients in the SLED group had significantly fewer days of mechanical ventilation (17.7  $\pm$  19.4 versus 20.9  $\pm$  19.8, p = .047) and fewer days in the ICU (19.6  $\pm$  20.1 versus 23.7  $\pm$  21.9, p = .04). Patients treated with SLED needed fewer blood transfusions (1,375  $\pm$  2,573 ml versus 1,976  $\pm$  3,316 ml, p = .02) and had a substantial reduction in nursing time (p < .001). The hospital weekly costs were CAD1,431 for SLED, CAD2,607 for CRRT with heparin,