

VP146 A Comparative Assessment Of 3D/2D Laparoscopic Display Systems

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INTRODUCTION:

The purpose of the study was to gather evidence on safety and overall effectiveness of performing laparoscopic surgery by using 3D versus 2D display systems in a variety of pediatric surgical procedures in order to efficiently support the final investment decision on the video system to be acquired.

METHODS:

A new methodology, that is, Decision-oriented HTA (DoHTA) (1) was applied to assess the technology on clinical, technical, organizational, economic, social, ethical and safety domains. A decision-tree covering all the relevant assessment aspects of 3D systems has been derived and weighted following the Analytic Hierarchy Process. Afterwards, another pairwise comparison list was set up to compare both alternative technologies with respect to every lowest indicator.

RESULTS:

DoHTA results of the 3D system has mainly forecast its impact on clinical efficacy and productivity within the specific context of use. The 3D system is particularly suitable in reducing the mean error rate, thanks to the stereoscopic depth cues which are lost in 2D vision (2,3) From the technical perspective, the analyses have indicated the reduction in median instrument path length, an enhancement of median motion smoothness, and the decrease in grasper frequency with the 3D display. However, the comparative cost analysis has pointed out that the 3D procedure cost was higher than its comparator.

CONCLUSIONS:

The assessment of the 3D visual system seems to reasonably satisfy the criteria of feasibility, clinical effectiveness and safety. However, the adoption of the 3D display system in surgical practice could involve increased hospital costs, mainly because of the initial cost of the technology. Indeed, based on the appreciation of the results of DoHTA, especially taking into account the positive technical and clinical features, we conclude that the 3D system may be a good alternative to the 2D system.

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VP147 Implementing Electronic Health Record In A Children's Hospital

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INTRODUCTION:

Since the adoption of electronic health record (EHR) systems, which contain large volumes of aggregated longitudinal clinical data, promises a number of

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