

## PD76 The Value Of Continuous Lateral Rotation Therapy In The ICU

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### INTRODUCTION:

Mechanical ventilation in the intensive care unit (ICU) increases the risk of hospital-acquired conditions (HACs) such as ventilator-associated pneumonia (VAP) and pressure injuries (Prl). Continuous lateral rotation therapy (CLRT) has been shown to reduce VAP and Prl incidence, but the value of switching to CLRT over standard care is presently unknown. We evaluate the cost-effectiveness of CLRT beds compared to standard care in ICUs and determine the return on investment (ROI) associated with its implementation.

### METHODS:

A Markov model was constructed to predict health state transitions from the time of ventilation through 28 days using the healthcare sector perspective. Daily transition probabilities were extrapolated from prospective clinical studies comparing CLRT with standard care. Costs were estimated in 2014 USD. Utility scores were extracted from the published literature. Cost per quality-adjusted life-years (QALYs) was calculated and sensitivity analyses were conducted. A secondary analysis from a societal perspective with a one-year time horizon included the costs of patient and caregiver lost productivity. ROI analysis was performed to estimate the net benefit and breakeven point of the investment. Value of Information analysis was performed to determine whether further research is warranted.

### RESULTS:

From both perspectives, CLRT was dominant. From the healthcare sector perspective, the expected cost for CLRT per patient was USD 47,165 compared to standard care at USD 49,258 per patient, showing that CLRT saves cost per patient. The expected effectiveness of CLRT per patient was 0.0418 QALYs compared to 0.0416 QALYs for standard care. CLRT was dominant in 99.94 percent of Monte Carlo simulations. CLRT also reached the break-even point after 5 months. Expected Value of Perfect Information was equal to 0.019, indicating little value of additional evidence at the current level of parameter uncertainty.

### CONCLUSIONS:

CLRT is highly cost-effective compared to standard care by preventing ventilator-associated infections and Prls in an ICU setting.

## PD78 Minimally Invasive Capsulorhexis In Children's Cataracts

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### INTRODUCTION:

Minimally invasive capsulorhexis is an incision in the anterior capsule in the peripheral zone for cataract extraction. It allows reduction of the size of the lesion, ensuring a better transparency of the visual axis, preserving the capsule almost intact and a layer of lenticular epithelial cells. The procedure could have a potential regenerative effect of the lens in a natural way. The objective of this study is to assess the efficacy and safety of minimally invasive capsulorhexis to promote lens regeneration in children's cataracts.

### METHODS:

This technology was identified by the early Awareness and Alert System, "SINTESIS-new technologies" of Agencia de Evaluación de Tecnologías Sanitarias (AETS) Instituto de Salud Carlos III (ISCIIL). An early assessment was conducted. The searched databases were: PubMed, Centre for Reviews and Dissemination (CRD), and Cochrane Library. Clinical studies using the procedure published in any language until 29 September 2017 were reviewed.

### RESULTS:

An open-label, randomized trial in pediatric cataract patients (age: 0–2 years) was retrieved. Twelve patients underwent minimally invasive capsulorhexis, while twenty-five patients received the standard treatment. Regarding efficacy, a transparent regenerated biconvex lens was found in 100 percent of eyes three months after surgery, but wasn't found in the control group. 100 percent of capsular openings healed within one month after surgery in the experimental group, but not in the