

created to produce a recommendation about biplane technology acquisition.

RESULTS:

A list of 257 citations was obtained yielding 9 eligible articles for analysis. Despite the lack of evidence found in the literature (median of Downs and Black: 3/32), the biplane system appears to reduce ionizing radiation and medical complications as well as shorten procedure time. Contextual data indicated that biplane system could improve operator's confidence, which could translate into reduced risk, especially for complex procedures. We estimate that a minimum of 50 cases can be done in our context (University hospital center covering a population of 306,322 people) with a higher level of patient safety. In addition, the biplane system can support our institution in advanced procedures teaching program.

CONCLUSIONS:

Given on the advantages provided by the biplane technology in our setting, the committee has recommended its acquisition. However, this technology should be implemented with a responsibility in collecting outcome data to optimize clinical protocol in doses of ionizing delivered.

VP194 Health Technology Assessment Applied To Nurse Retention And Development: A Sickle Cell Example

AUTHORS:

Julia Lavenberg, Matthew Mitchell (mdmitchell@uups.upenn.edu), Kendal Williams, Craig Umscheid

INTRODUCTION:

Health Technology Assessment (HTA) methods are usually applied to the evaluation of drugs, devices, and procedures. We have used HTA to promote evidence-based decision-making on topics relating to staffing and career development for healthcare

professionals. Interventions to reduce the stress associated with caring for patients who need repeated hospitalization such as patients with sickle cell disease are thought to improve job satisfaction and nurse retention, but is there scientific evidence to support them?

METHODS:

We systematically searched Medline, CINAHL, PsycINFO, Cochrane, and Joanna Briggs Institute databases for published studies evaluating interventions targeting healthcare personnel. Searches combined terms for sickle cell disease with terms for job stress, turnover, and other career-related outcomes. We evaluated the quality of individual studies using standardized checklists and constructed evidence tables.

RESULTS:

We found one randomized trial (RCT) of an education program for nurses and physicians, a pre-post analysis of a communication skills and cultural awareness program, and a case study of a nurse support group. The RCT found that an education program significantly improved participants attitude towards patients but did not measure any outcomes relating to caregiver stress or job satisfaction. The pre-post study found that a communication skills program significantly improved nurses confidence in their ability to communicate with patients. The case study reported that nurses found the support group useful and felt their attitudes were improved, but there was no control group to compare their responses to. The education program was graded as moderate-strength evidence and the other programs had low-strength evidence. There was no meta-analysis or other data synthesis of the results because of the differing interventions and outcome measures.

CONCLUSIONS:

There have been few quantitative scientific evaluations of the effectiveness of interventions to reduce the stress nurses feel when caring for sickle cell disease patient. The studies that have been published have favorable conclusions towards these interventions, but the strength of evidence is not high.