

Individual's Health - Clinical Outcomes

PIH1

COMPARATIVE EFFECTIVENESS OF BARBED SUTURES VERSUS CONVENTIONAL SUTURES FOR MINIMALLY INVASIVE HYSTERECTOMY - A SYSTEMATIC REVIEW ON CLINICAL OUTCOMES

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Objectives: To conduct a systematic literature review of studies assessing clinical outcomes associated with minimally invasive hysterectomies performed with barbed sutures versus those performed with conventional sutures. **Methods:** A systematic search of PubMed and Scopus was conducted for literature published between January 2011 and June 2020. The Boolean query (barb* OR knotless AND sutur* AND minimally AND invasive OR robot* OR laparoscopic AND hysterectomy) was employed. Additional articles were identified through manual reviews of references. Pre-clinical studies, case reports and conference abstracts were excluded from review. **Results:** Of the 105 studies identified, five met the predefined inclusion criteria. The risk for major vaginal bleeding for the barbed suture group was up to 50% lower than that for the conventional suture group (14% vs. 27%). There was no significant difference in minor vaginal bleeding incidence in the two studies that examined this outcome. Vaginal cuff dehiscence incidence was up to 7% lower in the barbed suture group compared to the conventional group (0% vs. 7%). The difference in median operative time ranged from 1 minute (extracorporeal suturing) to 19 minutes, with time saved for the barbed suture group in all studies. Median vaginal cuff suture time was also shorter for the barbed suture group by 2-6 minutes, according to three out of four studies. **Conclusions:** The literature suggests that barbed sutures are a useful tool for vaginal cuff suturing in minimally invasive hysterectomies. While there was variation in statistical significance of the differences in the outcomes of interest, all studies demonstrated similar or moderately better outcomes and shorter operation time for the barbed suture group. More research is needed to generate a more conclusive evidence.



PIH2

SYSTEMATIC LITERATURE REVIEW OF CLINICAL OUTCOMES, ECONOMIC BURDEN, AND QUALITY OF LIFE BURDEN OF ANEMIA IN ELDERLY PATIENTS

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Objectives: This study aimed to synthesize the relationship between chronic anemia associated with various diseases and the clinical, economic, and quality of life (QoL) outcomes in elderly patients. **Methods:** Three systematic literature reviews (SLRs) were conducted in February 2019. The clinical SLR results were summarized through meta-analysis, whereas the economic and QoL SLRs were summarized qualitatively. **Results:** The meta-analysis of clinical outcomes included 32 studies. Anemia was associated with a significantly increased risk of mortality (hazard ratio [HR] 1.63, 95% confidence interval [CI] 1.51-1.77), cardiac-related mortality (HR 1.47, 95% CI 1.29-1.68), and hospitalization (HR 1.53, 95% CI 1.24-1.88) compared with non-anemic elderly patients. Many studies were conducted among nursing home residents, whereas others were conducted in patients with pre-existing conditions (e.g. heart failure); findings were consistent across these studies. Sixteen studies reported QoL outcomes; the Activities of Daily Living (ADL) score was reported most frequently (n=8), along with the 36-item short form (n=5), the Mini-Mental State Examination (n=5), and the Geriatric Depression Score (n=4). More than half of the studies suggested that anemia worsened ADL, whereas 2 studies reported comparable ADL. Some studies suggested that anemia was associated with depression; however, the results varied depending on the scale used. Of the 4 studies with economic outcomes, 2 reported on direct costs and 3 reported on resource utilization. The largest driver of cost differences between anemia and non-anemia groups was hospitalization-related costs. Among those with comorbidities, the length of hospital stay was greater for anemic versus non-anemic patients. **Conclusions:** In the elderly, anemia was associated with worsened QoL and increased mortality, hospitalizations, and costs. These findings were consistent across disease areas. Limitations include inconsistencies in the QoL literature owing to differences in QoL measurement tools, and a scarce economic evidence base.



Individual's Health - Economic Evaluation

PIH4

AN ECONOMIC COMPARISON OF TREATMENT STRATEGIES WITH ANAKINRA IN SYSTEMIC JUVENILE IDIOPATHIC ARTHRITIS (SjIA)

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Objectives: Systemic juvenile idiopathic arthritis (sJIA) is a rare, complex auto-inflammatory disease with substantial morbidity. Since the turn of the century, biologic agents (such as anakinra) have been successfully used to treat patients internationally, but their usage in some regions is limited to those that have failed to achieve clinically-inactive disease with corticosteroids and conventional synthetic disease-modifying anti-rheumatic drugs (csDMARDs). Use of anakinra in the first line leads to better clinical outcomes, but longer-term costs for this strategy have not been established. This study aims to compare the economic implications of alternative treatment strategies with anakinra for patients with sJIA. **Methods:** Data for patients treated with first-line anakinra were identified from a single-centre, prospective study conducted in the Netherlands and compared to a combination of published clinical trials and economic evaluation information, as well as clinical expert input to facilitate a comparison to later-line anakinra (i.e. following corticosteroids + csDMARDs). Costs were estimated for product acquisition and medical resource use (MRU), including planned outpatient visits and unplanned hospital admissions. Total costs (in Euros) over a 5-year horizon were compared. **Results:** Total 5-year product acquisition costs for the first-line anakinra strategy were €24,021, versus €20,471 for later-line anakinra. The corresponding MRU costs were €19,197 (first-line) versus €25,425 (later-line). Overall 5-year costs (product acquisition and MRU) were lower for the first-line strategy (€43,218 versus €45,896). **Conclusions:** A comparison of economic outcomes in the management of sJIA with anakinra is challenging, yet the findings of this study support the expectation that earlier use may lead to cost savings through reduced medical expenditure. Further research is required to fully establish the differences in costs associated with alternative treatment strategies in sJIA, including costs related to the avoidance of additional downstream costs, such as steroid-related complications, osteoarthritis, and macrophage activation syndrome.

PIH6

PATTERN AND DETERMINANTS OF WILLINGNESS TO PAY FOR ANTENATAL AND POSTNATAL PHYSIOTHERAPY IN NIGERIA

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Objectives: The aim of this study was to examine the willingness to pay (WTP) for antenatal and postnatal physiotherapy among pregnant women and nursing mothers in Nigeria. **Methods:** A total of 120 pregnant women were purposively recruited for this cross-sectional study. Ethical approval was sought from the Health Research and Ethical Review Committee of the Obafemi Awolowo University Teaching Hospitals Complex. A five-section WTP and short form 12 (SF-12) health survey were used to assess the determinants of willingness to pay for antenatal and postnatal physiotherapy, as well as mental health domains of the respondents. Data were analysed using descriptive and inferential statistics. **Results:** The mean age of the participants was 28.9 ± 5.02 years. A high 'no WTP' rate of 64.2% was found in the study. Significant associations were found between WTP for antenatal and postnatal physiotherapy and income ($\chi^2 = 26.526$, $p = 0.001$), education ($\chi^2 = 30.404$, $p = 0.001$), ethnicity ($\chi^2 = 13.865$, $p = 0.001$) and mental health domain of SF-12 ($\chi^2 = 11.150$, $p = 0.004$). Those in middle socio-economic status were not willing to pay for physiotherapy with a percentage of 87.0%, whereas, those in high economic status were WTP with a percentage of 20.93%. It was also observed that the participants with three number of visits to the clinic had the highest frequency for 'no WTP' at 9.09%. **Conclusions:** The findings of this study suggest that there was a high prevalence of no WTP for physiotherapy among pregnant women and nursing mothers in Nigeria. Ethnicity, income, socio-economic class, and education influenced WTP for physiotherapy. This study may be of interest to decision makers when setting up and evaluating different interventions for pregnant women and nursing mothers.



PIH7

COST-EFFECTIVENESS ANALYSIS OF ETONOGESTREL CONTRACEPTIVE IMPLANT COMPARED TO SIX OTHER CONTRACEPTIVE METHODS BASED ON REAL LIFE DATA IN FRANCE

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Objectives: To estimate the cost-effectiveness (CE) of etonogestrel (ENG) implant compared to other long-term and short-term reversible contraceptive methods

