MT15
ADHERENCE TO POSITIVE AIRWAY PRESSURE THERAPY IN A COHORT OF COLOMBIAN PATIENTS WITH OBSTRUCTIVE SLEEP APNEA SYNDROME

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Objectives: Obstructive sleep apnea syndrome (OSAS) is an important risk factor for several cardiovascular diseases including stroke and coronary heart disease. Positive air pressure (PAP) devices are part of the treatment for OSAS. We describe adherence to the use of PAP devices in a cohort of patients with OSAS in Colombia, and their hospitalization rates and cardiovascular comorbidities. ***Methods:*** Descriptive cross-sectional study of all adult patients (18 years-of-age or older) treated between January 2018 and December 2019 in the sleep clinic of a large private insurer in Colombia. Adherence was defined as the use of the device for 4 hours or more, at least 70% of nights in the month prior to the last visit to the sleep clinic, and was provided directly by the software included in each device. ***Results:*** A total of 12,538 patients were included (51.3% women) with a mean age of 61.3 years; 10,220 patients (81.5%) used CPAP devices and 1,550 (12.4%) BIPAP. Only 4,602 (37.4%) classified as adherent, while 4,660 (37.8) did not use the device at all (0% adherence). Only one in six patients (17.5%) used the device in 90% or more in the previous month. Adherence rates were highest in the >65 years age groups, with no significant differences between males and females. 2,305 patients (18.5%) were hospitalized, on average 3.2 times; 515 of these (21.3%) had one or more cardiovascular comorbidities. ***Conclusions:*** Adherence rates in this sample are lower than those reported elsewhere. They are similar in males and females, and tend to improve with age. Interventions to improve adherence are essential in OSAS patients in Colombia.

MT16
EFFICIENCY AND USER SATISFACTION OF SINGLE-USE VS REUSABLE CYSTOSCOPES IN A HIGH-VOLUME UROLOGY CLINIC

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Objectives: Cystoscopy is the most common procedure performed by urologists in clinic. Efficiency improvements are essential for the delivery of high-quality patient care. Single-use cystoscopes have emerged as an alternative to reusable cystoscopes with the potential for in-clinic time savings and reduction of cross-contamination. We evaluated differences in efficiency and user satisfaction for reusable and single-use cystoscopes in the outpatient setting. ***Methods:*** Cystoscopies at a high-volume clinic were randomized into single-use or reusable cystoscopy. Times were recorded starting from set up to in-room cleanup for 60 single-use and 55 reusable cystoscopies. A survey was conducted among providers, nurses, and medical assistants who routinely perform or assist in outpatient cystoscopy to assess utility and satisfaction. Participants were asked to rank both cystoscopes on a 5-point Likert scale (1 = very poor, 5 = excellent) regarding efficiency, performance, and satisfaction. ***Results:*** When compared to reusable, single-use cystoscopes were associated with significant reductions in time spent on pre-patient set up (5:47 vs. 6:50 min, p=0.03), time providers spent in room (7:29 vs. 9:25 min, p=0.02), and time spent on in-room clean up (3:44 vs. 10:02; p<0.005) (Table). Procedure time was not significantly different. When examining total handling time (set up, procedure, and clean up), single-use saved 7:40 min in staff time when compared to reusable cystoscopes (P<0.005). Among survey respondents, 100% ranked single-use cystoscopes 5 for all qualities assessed, compared to reusable cystoscopes which averaged at or below 3.8 for each quality. ***Conclusions:*** Single-use cystoscopes can increase efficiency in the clinic in addition to time saved for reprocessing and transport. Additionally, single-use cystoscopes are preferred over reusable cystoscopes by physicians and staff involved in outpatient cystoscopy, and overall satisfaction and perception of benefit to clinic flow is high. Further investigations into cost and sustainability can help clarify the role of single use-cystoscopy when efficiency is of priority.

MT17
ASSESSMENT OF THE PRODUCTIVITY FEATURES AND ANALYSIS OF THE QUALITY PARAMETERS FROM THE CONTROL UNITS PROCESSED USING A SEMI-AUTOMATED, BUFFY COAT METHOD, IN A COLOMBIAN BLOOD BANK CENTER

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Objectives: The aim of this study is to assess quality parameters from control units processed using a semi-automated, buffy coat method in LaCardio Blood Bank Center (BBC), and to perform a value stream mapping of this process. ***Methods:*** We analyzed 9 parameters from the control units processed in LaCardio BBC from 1st January 2020 to 30th September 2022. We also performed a value stream mapping of the processing system, listing and timing all operator manual interventions, as well as assessing current productivity bottlenecks. In addition, we assessed the feasibility for LaCardio BBC to increase its monthly processing cycles with its current semi-automated method. Visual charts were developed to portray the outcomes. ***Results:*** Between January 1st 2020 to September 30th 2021, quality parameters from 671 control units from LaCardio BBC, processed with the semi-automated, buffy coat method, were analyzed. The averages from whole blood units' parameters were: volume (477,4±8,8ml); leukocytes (2,8±0,7×10^9/L). The averages from red cell concentrates' parameters were: volume (298,6±27,7ml); hematocrit (59,5±2,8%); hemoglobin (20,4±1,1g/dl). The average volume from plasma units was 248,3±33,8ml. The averages from platelet units' parameters were: volume (60,8±5,9ml); leukocytes (0,019±0,013×10^9/L); platelets (86,5±19,8×10^9/L). From the value stream mapping, 59 operator manual interventions were registered and timed. Productivity bottlenecks were found related to daily delivery schedule of whole blood units, available room space, quantity of manual interventions and required operators, current software program to register data, operator training and experience, and type of whole blood processing system. ***Conclusions:*** Quality parameters from control units processed in LaCardio BBC between January 1st 2020 to September 30th 2022 have maintained similar levels and comply with Colombian national guidelines on whole blood products. However, we recommend assessing other whole blood processing systems as its current method requires multiple manual interventions that can lead to errors, limits productivity and scalability, and, due to training requirements, is operator dependent.

MT18
EFFECTIVENESS, SAFETY AND ECONOMIC EVALUATION OF USING VARIED-HEIGHT SURGICAL STAPLERS IN LAPAROSCOPIC HEPATECTOMY FOR LIVER CANCER: A RETROSPECTIVE, REAL-WORLD STUDY

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Objectives: The objective of this study is to compare clinical and economic outcomes of varied-height staple versus fixed-height staple for laparoscopic liver resection surgery. ***Methods:*** Patients undergoing laparoscopic liver resection at the Department of Liver Surgery of a Grade-A tertiary hospital in Chongqing between April 1st, 2014 to December 31st, 2020 were assessed. The primary outcomes were post-operative complication rate, length of hospital stay and total medical cost. ***Results:*** A total of 115 patients were included in the study. Median hospital stay was 15.0 (range 13.0–18.0) days for varied-height cartridge group and 15.0 (13.0–19.0) days for the fixed-height cartridge group (P = 0.3827). The overall medical costs were similar in the two groups (71,603 versus 72,066 RMB respectively; P = 0.5734). The western medicine cost was significantly lower in the varied-height cartridge compared to that in the fixed-height cartridge group (19,340 versus 14,417 RMB respectively; P = 0.0139). Multivariate stepwise logistic regression analysis revealed that the choice of varied-height cartridge (p=0.0180; 95%CI OR: 0.14 ~ 0.83) was an independent protective prognostic factor, which reduced occurrence of complications after the procedure. ***Conclusions:*** The use of staplers with varied-height has the advantages of decreasing the probability of postoperative complication after liver resection. The surgical technology is therefore recommended for patients with liver cancer in laparoscopic hepatectomy.

MT19
THE PAST, PRESENT, AND AN OUTLOOK ON THE FUTURE OF EVIDENCE DEVELOPMENT FOR DIGITAL THERAPEUTICS

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Objectives: Digital Therapeutics (DTx) are medical interventions directly to patients using evidence-based, clinically evaluated software to treat, manage, and prevent a broad spectrum of diseases and disorders. Randomized clinical trials are a source of DTx evidence, similar to pharmaceuticals or medical devices. In addition, the use of real-world evidence (RWE) has been increasingly explored for DTx value demonstration. Key concerns around the use of RWE in DTx, has thus far limited its acceptance and applicability, including the robustness of data, and a lack of consensus over an evaluation framework for DTx. This study aims to understand the current trends in evidence development for DTx, and to evaluate how this may impact the assessment of these therapies. The analysis will describe the strength and influence that different types of evidence and endpoints have had in the value assessment, coverage, reimbursement, and adoption of DTx. ***Methods:*** A targeted literature review was conducted to understand the evidence developed and submitted as a part of DTx commercialization. Sources included PubMed, the ISPOR presentations database, clinicaltrials.gov, and gray literature (e.g., thought leadership