

(MEP) in hospital. Using a combined model of ABC analysis and Multiple criteria decision analysis (MCDA) may be more appropriate to apply to MEP.

**Methods.** We created five standardized criteria, which present the main results of assessment of the viability of MEP for implementing new health technologies (HTs). These criteria address the following: 1) Novelty/innovation; 2) Comparative clinical effectiveness and safety; 3) Relevance (demand); 4) Economic effectiveness; and 5) Payback period. Based on these criteria we determine the threshold values of priority for MEP: 1) High priority; 2) Medium priority; 3) Low priority.

**Results.** Using the ABC model and five standardized criteria, we analyzed all proposals from the Hospital units for implementing new HTs connected with MEP for 2018. In total, proposals contained 11 items of ME, among them three items were in group A (27%), two items were in group B (18%), and six items were in group C (55%). All items were high priority for procurement with the exception of one item from group B with medium priority. Items with low priority were not revealed which can be considered as a direct indicator of the operational effectiveness of Hospital-based HTA Unit. Excluding ME with a medium priority from the procurement plan would reduce Hospital costs by 13.5 percent.

**Conclusions.** Combined ABC and MCDA analysis in the process of assessment the viability of MEP can give the opportunity to make comparative assessment of different types of ME based on standardized criteria; determine the priority for procurement of new ME; and avoid the influence of subjective factors of the managerial decision-making process in hospital.

## OP18 A Case Study Of Local Context-Dependent Decision-Making In Health Technology Assessment

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**Introduction.** Antibiotics impregnated calcium sulfate (AI-CaSO<sub>4</sub>) is an innovative practice to ensure local diffusion of antibiotics especially in the treatment of prosthesis or medical implants infections. A recent introduction of AI-CaSO<sub>4</sub> at CHU de Québec-Université Laval (CHU de Québec) was followed by a rapid increase in use and costs. A hospital-based health technology assessment (HTA) was then requested to assess the clinical relevance of AI-CaSO<sub>4</sub> in surgical site infection (SSI) management.

**Methods.** A systematic review of the effectiveness and adverse effects of AI-CaSO<sub>4</sub> was performed in indexed databases and grey literature. The local context analysis included different methodologies: 1) interviews with pharmacists, surgeons and operating room managers, 2) data extraction from electronic patient records (EPR), 3) procurement database on CaSO<sub>4</sub>, and 4) interdisciplinary working group including orthopedic and vascular surgeons, pharmacists, infectiologists, and hospital managers.

**Results.** Available evidence suggest that AI-CaSO<sub>4</sub> could contribute in the treatment of osteomyelitis whereas no conclusion can

be drawn for other medical indications in both treatment and prevention of SSI. A review of 113 surgical procedures showed that AI-CaSO<sub>4</sub> was rapidly adopted after only one year and used for various medical indications in neuromodulation, orthopedic and vascular surgery. Osteomyelitis treatment accounted for less than 3% of cases. AI-CaSO<sub>4</sub> was mainly used in prevention of SSI (65%) and surgical revisions (74%). Furthermore, local safety issues were raised by a lack of standardization for the preparation and under recording of antibiotics use with AI-CaSO<sub>4</sub>.

**Conclusions.** The current state of knowledge does not support the widespread use AI-CaSO<sub>4</sub> at CHU de Québec. This study highlights the importance of adapting HTA approach to the local context to influence decision-making especially in the context of innovating practice in order to insure the relevance, safety and sustainability of care.

## OP19 Does The HST Represent A Best Practice Model For Ultra-Orphan HTA?

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**Introduction.** Ultra-orphan therapies (prevalence: <1:50,000) can have trouble meeting Health Technology Assessment (HTA) clinical- and cost-effectiveness criteria, set by HTA bodies to inform reimbursement decision-making, due to low patient numbers limiting the supporting clinical evidence generated and high per-patient prices. Since 2013, National Institute of Health and Care Excellence (NICE) appraise Highly Specialised Technologies (HST) (“for use in the provision of services for rare and very rare conditions”) using a distinct appraisal framework. This research compares NICE HST appraisal outcomes with corresponding guidance by other HTA bodies.

**Methods.** All NICE HST technology guidance was screened (1 January 2013–6 November 2018) alongside corresponding guidance by Gemeinsamer Bundesausschuss (G-BA), Haute Autorité de Santé (HAS), Scottish Medicines Consortium (SMC), and National Centre for Pharmacoeconomics (NCPE).

**Results.** NICE have published eight HST guidances all with positive recommendations after a median of 21 months (range: 7–38) after European Marketing Authorization (MA). An additional eight HST have guidance in-development despite having European MA for a median of 12 months (range: 2–46) with 5/8 having draft guidance issued, all being “not recommended”. Of the 18 HSTs with NICE guidance published/in-development, 29 percent (2/7), and 33 percent (2/6) have been assessed with positive outcomes (definition: “recommended”/“accepted”/“conditional”/“restricted”) by SMC, and NCPE, respectively vs. 100 percent (9/9) by G-BA (definition: any additional benefit), and 50 percent (5/10) by HAS (definition: ASMR I-III). Median delays between European MA and positive appraisal outcomes were seven (G-BA), nine (HAS), 12 (NCPE), and 19.5 months (SMC).

**Conclusions.** Although all NICE HST final guidances to date have been positive, few technologies have completed this process after substantial delays from MA. Other cost/QALY HTA bodies (i.e. excluding the G-BA and HAS clinical-assessment HTAs) have shown low appraisal and recommendation rates for these