PROCUREMENT PERSPECTIVES ON ASSESSING THE VALUE OF MEDICAL DEVICES

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Note: All content and opinions expressed are exclusive to the panelists and do not necessarily reflect panelists organizations or ISPOR.
QUESTION 1: WHAT DO YOU THINK IS THE MOST IMPORTANT PIECE OF INFORMATION USED IN MEDICAL DEVICE PROCUREMENT DECISIONS?
Assessing the value of medical devices is a key element in making adoption and coverage decisions for medical devices.

Several value assessment frameworks (VAFs) have been published to provide measures to evaluate medical interventions.

Current recommended measures of values assessment are not consistently used.

ISPOR Special Task Force (STF) established in 2016 to provide guidance on value assessment frameworks.

ISPOR SFT Recommended the use of the cost per quality-adjusted life year (QALY) for payer coverage and reimbursement decisions.

Use of QALYs varies from country to country.
Hospital purchasing departments, value assessment committees, and group purchasing organizations consider different criteria when making purchase decisions.

As a result, patients and even some clinicians are not making the decision as to what device will be used.

The aim of this project is to identify what specific criteria stakeholders use to assess the value of medical devices.

Goal: to inform evidence generation strategies for medical device companies and researchers to capture the most relevant data.
METHODOLOGY
Process flow

Protocol:
- Feb. 2020: Agree on MDD SIG Topic
- Development of protocol using PICOS method
- SIG review
- Final protocol: July 2020
  - Incorporate comments

Literature Review:
- Oct. 2021: Evidence synthesis
- Data quality assessment of included studies
- Data extraction in template finalized with SIG
- Selection of studies PICOS criteria
- Search in databases: Nov. 2020
  - Incorporate comments

Manuscript:
- Dec. 2021: Manuscript Draft
- SIG review
- Final Manuscript: Feb. 2022
Criteria for considering the studies

Types of Studies Included
- HTA
- Cross sectional
- Observational
- Prospective
- Quasi controlled
- Randomized
- Experimental

Search Strategy
- Keywords
- MeSH Terms

Electronic Searches
- PubMed
- Embase

Inclusion Criteria
- Medical device(s)
- Health technology assessment
- Procurement / purchase

Exclusion criteria:
- Not about medical devices
- Articles prior to 2000
RESULTS
QUESTION 2: HOW MANY STUDIES (ABSTRACTS) DO YOU THINK WERE IDENTIFIED BY THE SEARCHES?
The study reporting followed the Preferred Reporting Items in Systematic Reviews and Meta-Analysis (PRISMA) Guidelines.

PRISMA Flowchart

292 of records identified through database searching (PubMed, Cochrane Database of Systematic Reviews, Cochrane Central Register of Controlled Trial, Health Technology Assessment, NHS Economic Evaluation Database)

11 of records after duplicates removed

244 of records excluded with reason:
Protocol: 18
Animal Study: 1
Not on Procurement: 225

281 of records screened

37 of full-text articles assessed for eligibility

11 of studies included in qualitative synthesis

11 of studies included in quantitative synthesis (meta-analysis)
From 11 studies data were extracted broadly for the above categories.
EXAMPLE STUDIES
Landaas et al (2020) describe the establishment of a value analysis (hospital HTA) team within a broader sourcing team to work across four hospitals and other health centers and covering all non-pharmaceutical products.

Evidence review (lasting 3 months)
- Existing HTA reports
- Clinical evidence
- Calculate expected budget impact
- Impact on patient care
- Review payer coverage policies
- Review clinical guidelines
- Input from manufacturer

Summary results: Callea et al 2017

- Studied the combined influence of HTA and different procurement models upon the selection and price of medical devices in Italy.

- National survey of Italian hospitals (44 hospitals across 15 regions) covering two main criteria:
  - HTA governance (regional; hospital-based; double-level; no HTA)
  - Presence of centralized procurement (yes or no)

- Four therapeutic areas characterized by rapid innovation (interventional cardiology, interventional neurology, neurosurgery, and orthopedics).

- Hospitals provided information on:
  - Quantities of devices purchased
  - Total device expenditures
  - Implementation of HTA
  - Information about the use of HTA in procurement decisions.

- Main conclusions:
  - Hospitals undertaking their own HTA activities acted as cost-containment units (with a potential to hinder access to innovative technologies).
  - Those using a regional HTA model were more likely to purchase the most expensive devices (due to a higher likelihood of positive regional HTA recommendations for such products).
  - Centralized procurement did not influence the selection of devices but led to prices which were around 10% lower than in areas without centralized procurement.
  - Hospitals following a regional HTA program were found to pay lower prices than those using an internal HTA approach, regardless of procurement level.
Summary results: Newman et al 2009


- Part of the UK health technology assessment program, whose remit is to perform research to inform bodies such as NICE

- The RCT collected clinical outcomes, patient-reported outcomes, self-reported psychological data, and a trial-based health-economic analysis (from a UK payer perspective) was performed to incorporate these elements and understand the cost-effectiveness profile of the different glucose monitoring devices.

- The overall conclusions were that the evidence did not support widespread use of continuous glucose monitors, due to insufficient clinical evidence, inconclusive cost-effectiveness and concerns around patient acceptability.

- Research priorities were identified but widespread use of the devices was not recommended. This would not preclude the devices from being used, but without a formal recommendation they would not be reimbursed.
Summary results: Poder et al 2018

- Hospital-based HTA to evaluate biplane angiography for vascular neurointervention
- UETMIS of the CIUSSS de l'Estrie-CHUS, Quebec Canada.
- 257 references; 9 selected; very low level of confidence
- SLEEPERS Methodology – Social, Legal, Ethical, Environmental, Political, Entrepeneurial/Research – (Marin et al.)
- Non-clinical Factors:
  - Support and reinforce procedural volume
  - Improve operators confidence
  - Funding mechanisms through providencial grants to defray costs
- Committee recommended to procure technology, in spite of the low level of evidence ‘given these contextual advantages’
- Procurement with evidence development
  - Ongiong Registry
- Analysis of context complemented the rigor of HTA
- Higher-dimensionl consideratinos beyond those typically considered by HTA.
QUESTION 3: WHAT IS THE BIGGEST REASON PROCUREMENT BODIES DON'T PUBLISH?
Call To Action

▪ Create incentives to publish among procurement bodies

▪ Improve connectivity and communication between:
  ▪ Methods Experts
  ▪ Evidence and Health Technology Assessment Community
  ▪ Procurement Bodies

▪ Advance evaluation and assessment methods among procurement bodies
- Prepare manuscript for submission to Value in Health (early 2022)

- Evaluating follow-on work to explore the topic in more detail, given the small number of studies identified (e.g., survey of device procurement staff)

- Gather feedback from SIG on how to take this forward
Discussion Topics & Questions

- Does this confirm what you would expect from the literature?
- Why is there not more evidence on this topic?
- What further steps could be taken to better understand device procurement?
- Should more detailed HTA with social, ethical and regional issues be encouraged?
- What role can ISPOR play in making device procurement more transparent?
Thank You!