

administered an online survey to hospital orthopaedists using two experimental techniques for preference elicitation (that is, discrete choice experiment (DCE) and case 1 best-worst scaling (BWS)). BWS data were analysed through descriptive statistics (that is, best-minus-worst score) and conditional logit model. A mixed logit model was applied to DCE data, and a willingness-to-pay (WTP) was estimated. All analyses were conducted using Stata 16.

Results. A total of ninety orthopaedists (95% male; mean age: 52.8 years) were enrolled in the survey. In BWS, the most important factor was 'clinical evidence', followed by 'quality of products', 'HTA recommendations' and 'previous experience', while the least important was 'cost'. DCE results suggested that orthopaedists prefer high-quality products with robust clinical evidence, positive HTA recommendation and affordable cost, and for which clinicians have a consolidated experience of use and a good relationship with the sales representative. The WTP for a high-quality product was estimated at EUR1,733, and for a good relationship at EUR2,843.

Conclusions. This is the first study aimed at analysing the multi-dimensionality of clinician's decision-making process in selecting new PPIs in orthopaedics in Italy. Despite the quality of products being declared as one of the most important dimensions in BWS, when other factors populate a hypothetical DCE scenario, physicians are not willing to accept quality at any cost (for example, high quality and very bad support from the producer or with uncertain clinical evidence).

OP223 A Semi-Automated Process To Monitor The Clinical Development And Regulatory Approval Pathway Of Innovative Medicines

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Introduction. Early identification of innovative medicines is crucial for timely health technology assessment (HTA) and efficient patient access. The National Institute for Health Research Innovation Observatory (NIHRIO) identifies, monitors and notifies key HTA stakeholders in England of 'technologies' (innovative medicines) within three to five years of regulatory approval. Increasing numbers of innovative medicines and significant uncertainties in clinical and regulatory pathways are major challenges in the monitoring and notification process. An active monitoring framework using pre-defined predictive criteria has previously been developed. This framework provides a standardized and consistent process, but is highly resource-intensive, requiring manual review of individual records.

Methods. Using the previous active monitoring framework, a scoring matrix was calculated and used to prioritize individual technologies using available data in the NIHRIO database: estimated regulatory timelines, regulatory awards/designations, innovative medicine type (for example gene therapies) and clinical trial phase, completion dates and results. A threshold for

automatic and manual reviewing of technologies was developed and tested by NIHRIO analysts.

Results. The scoring system identified approximately ninety percent of technologies meeting the threshold for semi-automated reviewing. The review period for these technologies are set automatically according to predefined criteria depending on data availability. The review periods are updated automatically until the record reaches the threshold that triggers manual reviewing. The remaining ten percent had estimated regulatory timelines necessitating the need for manual reviewing and early engagement with companies to verify regulatory timelines and/or notify HTA stakeholders.

Conclusions. Preliminary analysis indicates that each technology is routinely and automatically updated. The semi-automatic updating represents a significant improvement in the efficiency of the monitoring of the large volume of technologies on the NIHRIO database. Ongoing work is being undertaken to further refine, pilot and test the system.

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OP227 Exploring The Value Of Soft-Intelligence: A Case Study Using Twitter To Track Mental Health During The COVID-19 Pandemic

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Introduction. There is increasing pressure to rapidly shape policies and inform decision-making where robust evidence is lacking. This work aimed to explore the value of soft-intelligence as a novel source of evidence. We deployed an artificial intelligence based natural language platform to identify and analyze a large collection of UK tweets relating to mental health during the COVID-19 pandemic.

Methods. A search strategy comprising a list of terms relating to mental health, COVID-19 and the lockdown was developed to prospectively identify relevant tweets via Twitter's advanced search application programming interface. We used a specialist text analytics platform to explore tweet frequency and sentiment across the UK and identify key topics of discussion for qualitative analysis. All collated tweets were anonymized.

Results. We identified 380,728 tweets from 184,289 unique users in the UK from 30 April to 4 July 2020. The average sentiment score was fifty-two percent, suggesting overall positive sentiment. Tweets around mental health were polarizing, discussed with both positive and negative sentiment. For example, some people described how they were using the lockdown as a positive opportunity to work on their mental health, sharing helpful strategies to support others. However, many people expressed the damaging impact the pandemic (and resulting lockdown) was having on