increased healthcare costs. Overall, this study demonstrated the importance of age-related PSA risk-adaptive PCa screening. The value of MRI deserves further investigation, considering MRI's positive effect on screening acceptability.

challenges of an aging population due to demographic change. The PRAEP-GO trial is currently exploring this approach on a small scale. Existing infrastructure and personnel structures would need to be adapted and expanded for scale-up.

OD24 Scalability Analysis Of Multimodal Prehabilitation For Frail Elderly Patients Before Elective Surgery In Germany

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Introduction: Multimodal prehabilitation, including interventions like physiotherapy, combined with frailty screening and a shared decision-making conference for frail elderly patients before elective surgery is an innovative approach currently under investigation (PRAEP-GO RCT, NCT04418271). The PRAEP-GO intervention aims to enhance postoperative outcomes and prevent care dependency. Our aim is to systematically assess the scale-up potential of PRAEP-GO within the German healthcare system.

Methods: We are conducting a scalability analysis using the Intervention Scalability Assessment Tool (ISAT). The ISAT questionnaire comprises two parts: (A) "Setting the scene," describing the current health service situation (e.g., intervention characteristics, political context), and (B) "Intervention implementation planning," outlining future requirements (e.g., workforce, infrastructure), with open-ended questions and a scalability readiness assessment using a scale. Our analysis involves three stages: (i) health economists from the PRAEP-GO research team individually answering ISAT questions, (ii) trialists from the PRAEP-GO research team interviewed in a group, and (iii) external experts representing relevant stakeholders for future implementation interviewed in an advisory board meeting.

Results: Data collection for stage (i) and (ii) has been completed, while data collection for stage (iii) is expected to be completed in February 2024. The preliminary findings for part (A) highlight the need for a sustainable approach to manage an aging and increasingly frail patient population requiring surgery. There is no clinical guideline available for the management of this population group. Regarding part (B), the current infrastructure (e.g., therapy facilities) and personnel structures might need to be adapted and should be expanded for large-scale application. Employing professionals to coordinate the patient pathway was recommended, along with adjustments to reimbursement structures.

Conclusions: In PRAEP-GO, we are pursuing a multidisciplinary process with the aim of supporting health decisions that promote an equitable, efficient, and high-quality healthcare system meeting the

OD26 Comparing Health Technology Developers' Proposed Indication To An Estimated Indication Generated By An International Horizon Scanning Database

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Introduction: Detail on a technology's projected therapeutic use is required for horizon scanning. The International Horizon Scanning Initiative (IHSI) database will utilize natural language processing (NLP) augmented by human curation to generate an estimated indication for technologies in development. We compared the estimated indication, generated as a test-set for NLP, with health technology developers' (HTDs) proposed indications identified from Ireland's horizon scanning system (HSS).

Methods: Eight oncology technologies common to both Ireland's HSS and the IHSI database were analyzed. The analysis included unlicensed technologies in late-stage development that have not submitted a European marketing authorization application. Ireland's HSS receives data on proposed indications for technologies from HTDs. IHSI database curators extract and convert terms from clinical trials into structured inputs (condition, combination therapy, stage of disease, place in treatment, patient/disease-specific subgroups) to produce an estimated indication for a technology. We sought to identify, by structured input, the degree of alignment between HTDs' proposed indications with the IHSI database's estimated indication.

Results: There was 100 percent alignment between the HTD's proposed indication and the estimated indication generated in the IHSI database for five of the eight included technology records. There was 83 percent alignment for two records and 67 percent alignment for one record. Across all records there was full alignment on condition, combination therapy details, patient-specific subgroup, disease-

specific subgroup, and place in treatment. Stage of disease was the only element where data was either not generated for the IHSI database's estimated indication, not aligned with the HTD's proposed indication, or reported in an incorrect field.

Conclusions: There is a high degree of alignment between an HTD-proposed indication and the IHSI-estimated indication. The processes for generating an estimated indication will involve both NLP-generation and human co-curation. The current (curator-selected) elements are being used to train the NLP engine. Thereafter, the engine will process clinical trial data to surface tags for human selection to generate the structured inputs.

OD27 Estimating The Causal Effect Of Adaptive Treatment Strategies Using Longitudinal Observational Data

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Introduction: Real-world data can help inform policymaking in health care by facilitating the evaluation of realistic treatment protocols. To generate robust evidence, analysts must address time-dependent confounders—variables influenced by past treatment decisions and affecting future treatment. Double-robust methods can help in eliminating bias by modeling both the treatment and the outcome mechanisms, using machine learning to improve model specification.

Methods: Longitudinal targeted minimum loss-based estimation (LTMLE) is a double-robust method that handles time-varying confounding, currently with only a few applications on real-world data. We demonstrate the use of LTMLE to evaluate realistic treatment protocols by applying it on longitudinal registry data to compare various treatment protocols that involve the use of erythropoiesis-stimulating agents (ESA) for myelodysplastic syndromes patients. We define dynamic regimes that trigger initiating ESA when relevant criteria (e.g., low hemoglobin levels) are met and require continuing/stopping ESA based on the response to treatment. We estimate the effect of these protocols on survival and EuroQol 5-dimension questionnaire (EQ-5D) scores.

Results: We study static treatment regimes where we compare patients always on treatment with patients always not on treatment, and we find the average effects of always administering ESA versus never administering it are positive but not significant on patients' EQ-5D scores or on survival probabilities across all treatment time periods. We also study dynamic treatment regimes where decisions to initiate and continue/discontinue treatment over time depend on changing patient characteristics and responses to treatment. We find that patients following dynamic treatment regimes are predicted to score higher in EQ-5D and have longer survival probabilities than patients under static treatment regimes.

Conclusions: The paper provides a tutorial and case study demonstration of the LTMLE model that can evaluate realistic treatment protocols using longitudinal observational data. It accounts for time-varying confounding in estimating treatment effects and can incorporate machine learning in improving accuracy of outcome prediction. The model has been applied in the setting of long follow-up times and gradually reduced sample size.

OD28 Towards Implementing New Payment Models For The Reimbursement Of High-Cost, Curative Therapies: Insights From Semi-Structured Interviews

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Introduction: In response to the intricate challenges posed by high-cost, one-shot curative therapies, this study explores what hinders the wide implementation of innovative payment schemes across Europe. Drawing insights from the Belgian social healthcare system, this study focused on defining the necessary and sufficient conditions for implementing outcome-based spread payments in the context of market access to advanced medicinal products

Methods: Semi-structured interviews (n=33) were conducted with physicians (n=2), hospital pharmacists (n=4), hospital managers (n=2), patient representatives (n=3), industry representatives (n=5), Belgian policymakers (n=6), sickness fund representatives (n=4), legislative experts (n=2), and accounting experts (n=5) to elicit opinions and insights on stakeholders' responsibilities and roles, and identify the necessary and sufficient conditions to establish outcome-based spread payments for the reimbursement of innovative therapies. The interviews took place between July 2020 and October 2020. The framework method analysis was performed using NVivo software (version 20.4.1.851). Statements were allocated into six main topics: payment structure, spread payments, outcome-based agreements, governance, transparency, and regulation.

Results: Interviewees across stakeholder groups endorsed the idea of implementing outcome-based spread payments. However, opinions varied on practical and legal feasibility, especially regarding long-term follow-up for patients, data collection burden on physicians, and implications on the financing flow of health technology developers, hospitals, and the government. Concerns were also raised regarding the potential need for new governance structures, enhanced transparency on agreements and pricing mechanisms, as well as defining data requirements to address uncertainties often seen with this type of therapy. All interviewees emphasized the importance of increasing stakeholders' understanding of these agreements to foster broader acceptance and successful implementation.

Conclusions: The effective implementation of outcome-based spread payments falls behind because consensus on how this reimbursement