training, specific care processes, EMR prompts for tests and treatments, regularly reviewed process metrics and group financial incentives. Practice variance was reduced and outcomes markedly improved.

Implications for Guideline Developers Guideline recommendations are more likely to be adopted in a uniform manner if they include specific recommendation, suggestions for implementation use in organised settings, and process and outcome metrics to track improvements.

020 BEST PRACTICES AND PERFORMANCE MEASURES FOR SYSTEMIC TREATMENT PERSCRIBER ORDER ENTRY SYSTEMS (STCPOE) IN CHEMOTHERAPY DELIVERY

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Background While information technology (IT) has the potential to improve the quality and safety of patient care, solutions such as computerised physician order entry (CPOE) are often designed and executed without end-user involvement and lack performance measures for monitoring quality and impact. To address this gap, an evidence based guideline for systemic treatment (ST) CPOE was developed incorporating both clinical and technological best practices. Performance measures for monitoring clinical impacts and system functionality were also developed.

Context The ST CPOE guideline was developed by a panel of physicians, nurses, pharmacists, IT specialists and human factors experts. Two Expert Panels (i.e. Clinical and Technology) were convened, to review and provide feedback on guideline content.

Description of Best Practice The guideline contains two distinct yet interconnected parts: clinical practice (e.g. error prevention, utilisation, clinical decision support), and technology requirements (e.g. usability, system integration, effective alerts). Also included are evidence based indicators to support the evaluation of ST CPOE systems and indicators reflecting clinician practice and patient outcomes. Quality monitoring of ST CPOE utilisation reveal that 75.5% of all chemotherapy visits are being supported by an ST CPOE system. A provincial evaluation of existing ST CPOE systems against the technology best practices is currently underway.

Lessons for Guideline Developers, Adaptors, Implementers, and/or Users This innovative guideline focuses on clinical practice driving IT solutions, not the other way around. A priori commitment to indicator development allowed for expanding beyond describing best practices to including indicators for monitoring progress toward achieving best practice, thus increasing relevance and uptake by end users.

021 REDUCING OVERPOPULATION: ACHIEVING MORE BY DOING LESS

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Background Too-frequent screening for cervical cancer can increase costs, lead to unnecessary invasive procedures associated with overtreatment, and shift resources away from the one in five women who do not receive recommended routine screening.

Context A large, US-based integrated healthcare system with centralised evidence services and eight independent regions developed and implemented an evidence-based guideline for cervical cancer screening. Novel implementation strategies and performance monitoring in one region in Southern California led to significant improvements and are described below.

Description of Best Practice Graded evidence summaries were conducted by a centralised analytic unit, and recommendations developed by a guideline team with representation from each region. In one large region with more than 3 million patients, interventions aimed at the practitioner, patient and systems levels were implemented for routine Pap and HPV co-testing. Practitioner interventions included electronic distribution of guidelines, point-of-care electronic prompts, and workflow support. Patient-level interventions included point-of-care education, and in-reach/outreach activities. System-level interventions focused on centralised patient outreach letters and reminder calls, computerised decision support, and unscreened cancer lists for panel management. Monthly performance monitoring on a measure of "overpopulation" was reported at medical centre, department and provider levels. In a five-year period, over 100,000 fewer unnecessary Pap tests were performed, while screening rates increased by 7%.

Lessons for Guideline Developers, Adaptors, Implementers, and/or Users Centralised guideline development, coupled with coordinated implementation and performance monitoring, can reduce unnecessary screening and invasive procedures, focus resources on appropriate routine screening in underscreened populations, improve patient access and reduce costs.

022 DEVELOPING GUIDELINES AND QUALITY INDICATORS SIMULTANEOUSLY: EFFECTS ON GUIDELINE CONTENT AND IMPLICATIONS ON THE GUIDELINE DEVELOPMENT PROCESS

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Background The German Guideline programme in Oncology (GGPO) funds and supports the development, implementation and evaluation of evidence based guidelines. An essential part of the programme is the development of quality indicators (QI) before a guideline is published. QI groups representing the multidisciplinary guideline development group including patient representatives and experts from organisations responsible for QI assessment and evaluation realise this following a standardised methodology.

Objectives To explore the effects of a standardised Quality Indicator Development Process (QIDP) on the content of guidelines and possible implications on the guideline development process.

Methods Retrospective content analysis of current guideline manuscripts. Description and categorization of changes in the guideline draft after the QIDP. Structured interview of QI groups.

Results 9 oncological guidelines including 87 QI were analysed. Changes in guideline drafts after the QIDP included: • formulation of new recommendations • specification of the wording of recommendations • specification and amendment of the predefined aims of a guideline • identification of aspects to consider for an update of the guideline. Results of the interview will be presented at the conference.

Discussion This investigation suggests a positive effect of the simultaneous QI development on guideline content concerning specificity of recommendations, clarity of aims to improve quality of care and identification of clinical questions to be addressed in future systematic reviews and/or guidelines.
Implications for Guideline Developers A simultaneous process to develop guidelines and QI is favourable not only to facilitate the assessment of guideline implementation and impact but also to improve guideline content and implementability.

023 FEASIBILITY AND EFFICIENCY OF STRATEGIES FOR UPDATING CLINICAL PRACTICE GUIDELINES

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Background Exhaustive search strategies (ESS) for updating clinical practice guidelines (CPGs) recommendations are laborious and expensive. Highly sensitive and specific alternative search strategies are necessary to improve the efficiency in recommendations updating.
Objectives To compare alternative search strategies against ESS
Methods We ran three different search strategies in a convenience sample of four CPGs from the CPGs National Programme in Spain: 1) Original ESS (gold standard); 2) Search strategy in the McMaster Premium LiteratUre Service (PLUS) database; and 3) Restrictive strategy with the least number of MeSH terms and text words from the original ESS. We retrieved the key references (which triggered an update) from the original ESS and evaluated their presence in the PLUS and restrictive strategies results. We calculated the sensitivity, specificity, precision, and accuracy for the PLUS and restrictive strategies compared to the ESS.
Results The overall number of references in the PLUS strategy was lower than in the ESS (39,133 versus 2,635). The PLUS strategy retrieved a range of 1.12% to 12.1% of the total number of references retrieved by the ESS per guideline.
Discussion Our project assessed two novel restrictive search strategies for the updating of CPGs, which could reduce the workload while displaying similar results. Full final findings of this project will be presented at the GIN meeting.
Implications for Guideline Developers/Users Our project has important implications for updating CPGs, informing on the feasibility and efficiency of two novel search strategies.

024 MAXIMISING EFFICIENCY IN UPDATING GUIDELINES THROUGH PRIORITISATION OF CLINICAL QUESTIONS

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Background To maximise efficiency in updating clinical guidelines it is important to understand which of its component clinical questions impact patient care most. Evaluating, editing, and prioritising of each clinical question is required to identify those that warrant updating.
Objectives To describe the methods used by a US health care delivery organisation to prioritise questions within an integrated cardiovascular guideline to determine those that were most important for updating.
Methods 127 clinical questions within an integrated cardiovascular guideline were ranked (using a Likert scale of 1–9) by importance for literature monitoring by clinical experts in each disease domain of the guideline. Examples of factors that influenced rankings included existence of high quality systematic reviews, knowledge that current evidence was relatively unchanged, and the notion that the question was no longer clinically relevant. Questions ranked 7–9 in importance for literature monitoring were considered most important for updating. Conversely, questions with low rankings were considered for retirement.
Results Of 127 questions ranked, 16 were identified as important for literature updating; 12 were retired. We were able to address the most important questions and avoid updating delays of 6–18 months.
Discussion Having these questions prioritised at the outset of updating allowed the healthcare organisation to ensure that the most important clinical questions were being addressed thus making the most efficient use of resources.
Implications for Guideline Developers/Users Evaluating, editing, and prioritising clinical questions improves efficiency when updating guidelines.

025 THE EFFICIENCY-VALIDITY METHODOLOGICAL CONTINUUM (EVMC) FOR SUSTAINABLE GUIDELINE (CPG) DEVELOPMENT: A NEGOTIATING TOOL FOR CREDIBLE COMPROMISES IN QUALITY FOR AFFORDABLE TRUSTWORTHY GUIDELINES

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Background Research methodologists and guideline sponsors are on a collision course as growing demands for scientific rigour raise costs and lengthen delays in CPG production.
Objectives To design a tool for CPG developers and sponsors to negotiate methodological compromises while preserving CPG trustworthiness. There are already variations in CPG quality that we tolerate. Flawless systematic reviews and guidelines are unrealistic. Methodological compromises are inevitable and imposed by practical constraints. Negotiating and reporting methodological compromises can fill a transparency gap where methodological choices are made in the development of a CPG.
Methods Three individuals with guideline development experience collaborated to design a tool that aligns stakeholders' interests while preserving 'trustworthiness' and enhancing transparency.
Results The Efficiency-Validity Methodological Continuum (EVMC) is anchored at the extremes by "practical" at the "efficiency" pole and "best achievable" at the "validity" pole, highlighting the tradeoffs. The continuum between these is represented as a solid line. A 'zone of preference' closer to the 'validity' and a 'zone of acceptability' closer to efficiency are negotiating zones. Beyond the anchors, represented as broken lines, are "expedience" at the efficiency end and "ideal" at the validity end. Guideline development should operate within the solid segment of the continuum. The broken segment towards