MetS, to characterise the populations who would benefit most and to describe facilitators and barriers.

Material and methods A search was conducted in MEDLINE, IPA, CINAHL and Cochrane using the keywords of Pharm* AND 'Metabolic syndrome*'. Peer-reviewed papers published in English from 2008, irrespective of the study design or population, were included. Studies were quality-assessed and data extracted by two reviewers using standardised tools.²

Results The initial search yielded 21 330 studies, of which eight met the inclusion criteria. Most were conducted in the USA (n=5), two in Europe and one in the Middle East. Most studies assessed pharmacist input in MetS screening (n=5), two evaluated the role of the pharmacist in management and one described the pharmacists' role in the implementation of the MetS screening programme. Outpatient care was the most studied setting (n=5), followed by community pharmacies (n=2). One study included inpatients. The quality of studies ranged from good (n=3), to fair (n=3) to poor (n=2). None reported the impact of the pharmacist input or any implementation facilitators and barriers. Compared to usual care, pharmacists integrated within the interdisciplinary team led to improved MetS-related outcomes. Community pharmacy-based studies highlighted the potential role around MetS awareness raising and detection, as did the study of inpatients.

Conclusion Pharmacists can effectively participate in the screening, prevention and management of MetS in different populations and settings to enhance patients' care. Further research is warranted to determine the clinical and economic impact, and describe the facilitators and barriers of implementing such a programme.

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No conflict of interest.

4CPS-276 ANTIMICROBIAL STEWARDSHIP PROGRAMME IMPLEMENTATION IN THE GULF COOPERATION COUNCIL STATES: A SYSTEMATIC REVIEW

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Background Antimicrobial resistance (AMR) has led to the development of initiatives aimed at optimising antimicrobial use. Coordinated interventions for promoting and monitoring the safe and effective use of antimicrobials are termed antimicrobial stewardship programmes (ASP). While there are several systematic reviews on aspects of ASP, none have focused on the processes and outcomes of implementation in the Gulf Cooperation Council (GCC) States.

Purpose The aim was to critically appraise, synthesise and present the available evidence on ASP implementation in the GCC States in relation to the interventions, reported outcomes, and facilitators and barriers to implementation.

Material and methods A systematic review protocol was developed based on PRISMA-P guidelines and registered with the International Prospective Register of Systematic Reviews.

4CPS-275 A SYSTEMATIC REVIEW OF PHARMACIST INPUT IN THE SCREENING, MANAGEMENT AND PREVENTION OF METABOLIC SYNDROME

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Background Metabolic syndrome (MetS) is a cluster of factors that increase the risk of cardiovascular disease and include diabetes, abdominal obesity, elevated triglycerides, low high-density lipoprotein cholesterol and high blood-pressure. A patient is considered to have MetS if three out of five factors are present.¹

Purpose To critically appraise, synthesise and present the available evidence on: the types and impact of pharmacist input in