ABSTRACT

Objectives: To validate a nationally developed standardised pharmaceutical care plan (PCP) for secondary prevention therapy in post myocardial infarction (MI) patients in cardiology units.

Design: Observational prospective study assessing ease of use of the standardised PCP and validation of the proposed alteration to the PCP by a panel of experienced cardiology pharmacists.

Setting: Lothian University Hospitals NHS Trust: Royal Infirmary of Edinburgh and Western General Hospital.

Subjects: 50 patients aged 41-86 years with a diagnosis of Q-wave MI identified from the admission records of the cardiology units and followed for a period of 14 days.

Main outcome measures:
- Characterisation of the study population.
- Confirmation of the actions in the care plan allows identification and resolution of pharmaceutical care issues.
- Identification of additional pharmaceutical care issues in post-MI patients not listed within the standardised PCP.
- Determination of the time course of pharmaceutical care issues addressed within the hospital.
- Definition of minimum, intermediate, and ideal standards for pharmaceutical care of post MI patients.

Results:

63% of the actions required to ensure safe prescribing are not systematically recorded in the medical notes. Ambiguity and lack of a systematic approach with terminology were identified as criteria for modification in the standardised PCP. Identification of additional long-term pharmaceutical care issues occurring in more than 10% of post-MI patients included treatment for post coronary stent insertion, left ventricular systolic dysfunction, atrial fibrillation, and angina. Secondary prevention therapy including aspirin, β-blocker, angiotensin converting enzymes (ACE) inhibitors and statin were prescribed within 3 days. 69% of dose modification occurred within the first five days of stay of which 47% were with β-blocker, and 38% with ACE-inhibitors. The study defined prescribing of aspirin, β-blocker, statin, sublingual GTN, control of blood pressure, education on drug therapy and health promotion advice as minimum standard to achieve in all post-MI patients. ACE-inhibitors were identified as intermediate standards in this study despite the publication of the SIGN guideline for secondary prevention of coronary heart disease following myocardial infarction.

Conclusion:

The standardised PCP can be considered as a quality improvement tool, which provides a structured basis to integrate evidence based guideline and monitoring of the standards into every day practice. All grades of pharmacists with or without experience in cardiology can use the standardised PCP. The PCP ensures that all minimum standards, based on the SIGN guideline, are addressed in all post-MI patients independently of the qualification of the pharmacists and also includes additional pharmaceutical care issues occurring in more than 10% of post-MI patients. No clear time course of pharmaceutical care issues could be determined.

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