The Impact of Medicines Information Enquiry Answering Services in Wales on Patient Care, Clinical Outcomes and Medicines Safety

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Background and aims

Each year, Medicines Information (MI) service in Wales answers 5500 enquiries. Services are quality assured against UK MI governance standards but there is a paucity research into the impact of advice on patients. A 2014 UK study showed services had a highly positive impact 1. As health care in Wales continues to diverge from the rest of the UK, it was vital to demonstrate the specific contribution of the Welsh MI service.

Methods

Methodology from the previous UK study was used with the addition of one question to the questionnaire 1. Data were collected for six weeks during summer 2015. All healthcare professionals who submitted a patient-specific enquiry were asked to complete a follow-up questionnaire, which assessed the impact of the advice using a clinical impact ratings scale.

Data were analysed using SPSS® and Excel®. χ² tested for associations between enquirers’ impact rating and their professional role, authority to directly make changes to the patient’s drug therapy, whether they were awaiting MI advice before proceeding and identification of additional medication issues by MI.

Potential bias of self-reporting was reduced by an expert panel of senior pharmacists and physicians independently assessing a sample of fifteen enquiries using the same scale and assessing inter-rater agreement using Cohen’s weighted κ.

This study did not require ethics approval.

Results

All ten MI centres participated. 346/519 enquiries met the study criteria. 299 enquirers consented and 167 questionnaires were returned (56% response rate, range 40-76%). 78% (n=130/167) were awaiting advice before proceeding with care. 98% (163/166) used the advice and 97% (156/161) reported a positive impact: 94% (151/161) on patient care or outcome, 88% (142/161) on medicines safety. 19% (31/161) avoided a major risk. The χ² tests showed no significant associations. The expert panel rated 73% (11/15) of enquiries as the same or more positive impact than the enquirer. There was no significant inter-rater agreement demonstrated: weighted κ = -0.10 (95% CI, -0.34 to 0.14). However, the confidence interval spans zero, suggesting there was an insufficient sample to accurately determine the value of κ.

Clinical advice provided by MI services to health care professionals in Wales produced a high level of positive impact on patient care, clinical outcomes and medicines safety. The impact was higher than in the previous UK study, particularly in terms of patient care and outcome (94% positive impact vs. 77%). 1 This service evaluation demonstrates that Welsh MI services follow the principles of prudent health care by contributing to shared decision making, medicines optimisation and reducing the risk of harm. 2

These results can be used as a benchmark for ongoing surveillance of the service. The study was limited by the small sample size and therefore further work is required to identify elements which influence the level of impact, to help focus future service development.

Discussion

Figure 1. No. completed questionnaires by professional role of enquirer

Figure 2. The effect of enquiry answering services on patient care and clinical outcomes

Figure 3. Impact of Medicines Information advice on patient care

Figure 4. Responders’ use of the information provided by Medicines Information (n = 164)

References
