L-Università ta' Malta
Faculty of Medicine & Surgery
Department of Pharmacy

DEVELOPMENT AND VALIDATION OF A DATA COLLECTION TOOL TO EVALUATE PHARMACETUICAL INTERVENTIONS IN AN INTENSIVE CARE UNIT

R. Agius, J. Vella Szijj, L.M. Azzopardi

Department of Pharmacy, Faculty of Medicine and Surgery, University of Malta, Msida, Malta

email: ruth.agius.02@um.edu.mt

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BACKGROUND AND IMPORTANCE

Clinical pharmacy services have been recently introduced in a local intensive care unit (ICU) and consequently, service evaluation is anticipated. There is the need for a tool to capture pharmaceutical interventions in ICU and assess their impact on specific patient outcomes.

AIM

To develop and validate a tool to describe and classify drug-related problems (DRPs) and pharmaceutical interventions (PIs) in ICU and evaluate the clinical relevance of the PI in preventing a potential Adverse Drug Event (pADE).

MATERIAL AND METHODS

A classification system based on Pharmaceutical Care Network Europe (PCNE) V9.1 was identified to capture and resolve DRPs observed in ICU. The PCNE V9.1 classification provides extensive categories of DRPs. Evaluation of impact of PIs in preventing a pADE is conducted using an established score[1]. The pADE score reflects the likelihood of an ADE occurring in the absence of a PI. The developed data collection tool was validated and subsequently piloted in ICU as described in Figure 1.

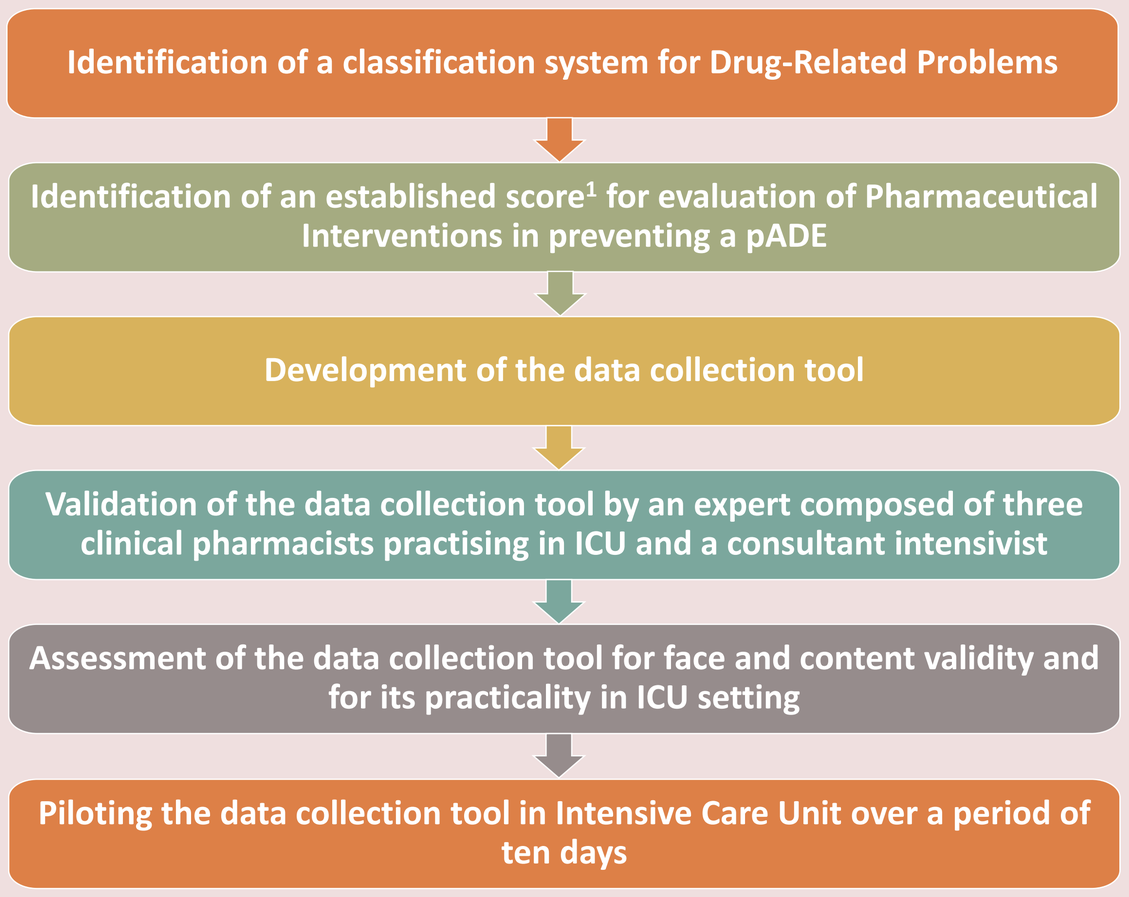

Figure 1: Process for development and validation of the data collection tool

RESULTS

The data collection tool consists of seven sections as shown in Figure 2. The patient demographics section includes patient information and details about pertinent laboratory results. The final section of the tool relates to evaluation of PI in relation to prevention of a pADE and contains five categories, zero to high, which correspond to the probability of a pADE occurring if the pharmacist had not intervened. Examples from literature are presented for each pADE category to assist with the evaluation of PIs. Following validation and pilot testing, four sections were amended to better adapt the tool to ICU setting.

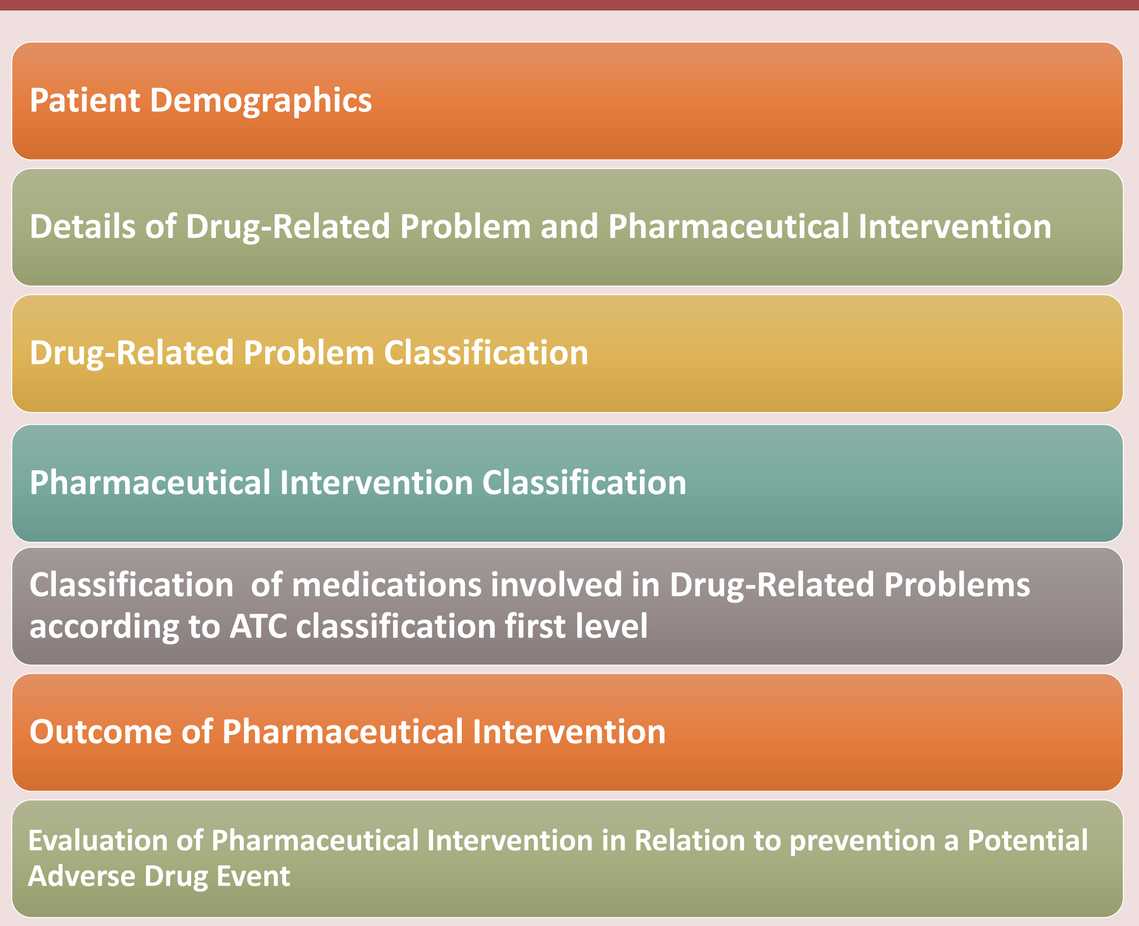

Figure 2: The seven sections included in the Data Collection Tool

CONCLUSION AND RELEVANCE

The development of such a data collection tool is important to standardise the classification of DRPs and interventions recommended by pharmacists in ICU. The tool contributes to data demonstrating value of pharmacist interventions on patient outcomes.

REFERENCE

1. Nesbit TW, et al. Implementation and pharmacoeconomic analysis of a clinical staff pharmacist practice model. AJHP 2001;58(9):784–790. DOI:10.1093/ajhp/58.9.784