**Second Training Workshop and Symposium MURIA Group 25 – 27 July 2016
University of Botswana, Gaborone**

Abstract Form

To ensure consistency, all abstract submissions must be made on this form.

Title of the abstract:	Using de-identified dispensing data to identify possible medication misuse and facilitate cross-national comparison.
Name of the submitting author – first name, surname, title	Therése Kairuz, Dr
Organization (affiliation) of the submitting author:	James Cook University, Australia
Email address of the submitting author:	therese.kairuz@jcu.edu.au
Details of other co-authors including their organizations/ affiliations (maximum of 5) (again fist name, surname and title)	Ilse Truter, Prof, NMMU Alex Pudmenzky, Dr, UQ Ian Fredericks, Mr, Malouf Pharmacy Laurence Rossato, Dr, UQ Samantha Hollingworth, Dr, UQ

Please indicate your preference: ✓ Oral presentation; ☐ Poster; ☐ Oral or poster presentation

Background:
Drug utilisation research contributes to rational use of medicines by optimising prescribing, including acute conditions such as upper respiratory tract infections or insomnia and anxiety. Pharmacotherapy should not be used as first-line treatment for insomnia and anxiety, and benzodiazepines should always be prescribed with caution due to their potential for addiction. Antibiotics must be prescribed with due diligence to reduce antimicrobial resistance, and the prescribing of antibiotics and benzodiazepines should follow local guidelines.

O*bjectives:*
The primary objective was to develop a dataset of de-identified dispensing data in Australia that would be suitable for drug utilization research. The secondary objectives were to analyse two subsets of data - antimicrobials and benzodiazepines - to identify possible medication misuse and to facilitate cross-national comparison.

Methods:
Customised software was used to extract and de-identify dispensing data from three pharmacies in South East Queensland using protocols approved by an ethics committee at the University of Queensland, Australia. The South African data were obtained from a private medical insurance scheme following ethical approval from Nelson Mandela Metropolitan University (South Africa) and both datasets were analysed using retrospective drug utilization techniques.

R*esults:*
Cross-national comparison of benzodiazepines showed a high frequency of alprazolam prescribing in South Africa; the drug was recently rescheduled to Controlled Drug status in Australia due to its potential for abuse. Trends in 'repeat' dispensing of antibiotics in the Australian dataset were cause for concern and nearly one-tenth of antibiotics were dispensed 30 days after prescribing.

Conclusions:
Software designed collaboratively by Kairuz, Pudmenzky, Rossato and Fredericks was suitable for drug utilisation research and has the potential to generate data for pharmacoepidemiological studies. Similar software could be used to generate cross-national studies about antibiotic patterns in Africa.