

## DUE Closing the Loop – Summary of Proceedings

The main objectives of the workshop were to provide delegates with an overview and an understanding of Drug Use Evaluation (DUE), to share experiences in conducting DUE activities and to promote the integration of DUE into everyday clinical practice.

The program included a series of short presentations from Australian DUE experts as well as facilitated interactive group work sessions to discuss and design a DUE program. Expert commentary was also provided by two international guests, Dr Ulf Bergman and Dr Sri Suryawati, drawing on their extensive international DUE experience.

### Program Outline:

Schedule	Topic	Presenter
9.00 – 9.05	<b>Welcome</b>	Karen Kaye
9.05 – 9.20	<b>Introduction to DUE</b>	Jonathan Dartnell
9.20 – 9.35	<b>Group Work Outline</b>	Sepehr Shakib
9.35 – 10.25	<b>Group Work Session 1</b>	
	Data Collection	Maxine Robinson
	Data Evaluation	Sepehr Shakib
10.25 – 10.45	<b>Morning tea</b>	
10.45 – 11.35	<b>Group Work Session 2</b>	
	Reporting/Feedback	Marion Robertson
	Intervention	Kylie Easton
11.35 – 11.55	<b>Plenary Discussion</b>	Panel
11.55 – 12.00	<b>Summary</b>	Paul Seale

Participants formed two groups, representing either a single hospital or a government body, and were asked, using drug use evaluation methodology (DUE), to consider and discuss the following scenario:

“Current evidence suggests that antibiotics being prescribed to manage community-acquired pneumonia (CAP) are inappropriate. There is a concern that inappropriate antibiotic use may be leading to bacterial resistance. How would you design and conduct a DUE in your area of practice to assess the current management of CAP?”

The following is a summary of the key points raised during the workshop. All the slide presentations used in the workshop are available through the DUE/DU webpage on the NSW TAG website ([www.nswtag.org.au](http://www.nswtag.org.au)).

**Getting Started (see ‘Introduction to DUE’ slides)**

- It is important to understand what it is that you want to achieve through conducting a utilisation review. This understanding will influence all other decisions made in planning the DUE.
- Often projects commence without a clear vision of why it is being conducted, whether there really is a problem or what part of the problem needs to be addressed.
- Need to be able to answer with certainty “who wants to know and why”.
- The people that should be involved in the DUE will depend upon who has the perception of a problem. Examples of those that should be considered are prescribers, nurses, pharmacists and consumers, and/or groups that represent these people.
- Be specific and not too ambitious.
- Check to see if others have already conducted similar work (In Australia use the QUMMap).
- Study the biggest problem first – pick the lowest hanging fruit.

**Data Collection (see ‘Data Collection’ slides)**

- Data can be collected from a number of different sources.
- The type of data to be collected is dependant upon the specific aims of the DUE.
- The type of data being collected will also be influenced by “who wants to know and why”. Then one should consider:
  - o What will **you** do with the data
  - o What will **they** do with the data.
- Data collection can be retrospective or prospective in design. Retrospective data collection may be useful when reacting to a given problem. Prospective collection can be used to assist in preventing a problem from occurring.
- If the aim of the DUE is to improve patient outcomes then the type of data to be collected should include patient outcome data.
- You need to know what part of the decision making process in patient care you are focusing on: diagnosis/drug choice/overall management etc.
- Do not collect data for the sake of collecting data. Identify the single most important pieces of information. Only collect what would be ‘nice to know’ if it is easily, or automatically collected.
- The designing of the data collection tool should be one of the final steps in the planning of the DUE (often people leap into this as a starting point).
- Piloting the data collection tool is essential and should be given to the greatest skeptic for feedback.

**Data Evaluation (see ‘Data Evaluation’ slides)**

- The way in which the data is evaluated should be determined by the initial question “who wants to know and why”.
- Identify the question then identify the outcome measures, this will determine what data to collect and how it will be evaluated.
- Data is often compared or evaluated against an agreed standard or guideline

- Ensure that the standard/guideline selected as the benchmark is the existing and accepted standard/guideline in the area of interest.
- It was acknowledged that sometimes the standards/guidelines are complicated. It is important to know prescribers perceptions of the current guidelines – to triangulate the qualitative and quantitative data to obtain a true picture of how, what and why.

**Feedback (see ‘Feedback’ slides)**

- The feedback/report should address the aim of the DUE
- May need 7 messages in 7 different ways to effectively communicate your results.
- Various stake holders were identified that would require a report on the results of the DUE in different formats:
  - o Reporting up – executive summaries
  - o Reporting across – journal publications
  - o Reporting down – letters and summary of the outcome(s).
- Reports should be reviewed by all DUE participants prior to circulation for endorsement
- Privacy of the patient, prescriber, hospital etc. should be maintained at all times.
- Feedback should be presented respectfully as a basis for discussion – not in a perjorative way. Individuals included in an audit should be given an opportunity to review the data/results before any reports are circulated to a wider audience.

**Intervention (see ‘Intervention’ slides)**

- Intervention(s) should focus on the problems identified in the data evaluation BUT you need to consider the consequences of the intervention – does the intervention (the activity itself or the resultant change in behaviour) have potential to impact negatively on other elements of patient care? You need to plan your interventions carefully and consider the impact on all aspects of patient care.
- Not all types of interventions will suit your target group.
- No single intervention strategy has been shown to be the gold standard
- A multi-faceted intervention strategy is currently recommended.
- Interventions should be developed in collaboration with the target groups.

**Summary Points from Ulf and Sri**

- Be specific: know what practice you want to change.
- Start small: you cant change the whole country all at once.
- Be respectful: this will ensure sustainability.
- Select the most effective strategy for the lowest cost – choose interventions carefully.
- Do not waste resources:
  - o Know your target group, ensure that you are focusing your time and efforts on prescribers who are working in the particular area of interest.
  - o Focus on clinicians with whom you will be able to work effectively.

## Questions and Discussion

There were two areas of interest identified in the question/discussion time: sample size and randomization.

### 1. Sample Size

- Is often determined in part by the effect size (important if you want to publish)
- If you want to influence a local audience then you simply need to be able to convince them of validity of your message.
- In quality improvement often the sample size and statistical significance are not important – the ability to demonstrate change from baseline is important – you are really looking for a stand-out change.
- = compromise between scientific and practical issues.

### 2. Randomisation

- The same issues apply here as above.
- Don't worry about eliminating bias – aim for stable bias, i.e. ensure that your methodologies are the same in each cycle to ensure that any bias present in one cycle of patient/data selection will be present in any subsequent cycles.

NSW TAG would like to thank the following organisations for their assistance in planning and developing this workshop:

- Therapeutic Guidelines Limited
- National Prescribing Service Limited
- Victorian Drug Usage Evaluation Group
- Australasian Society of Clinical and Experimental Pharmacologists and Toxicologists
- Drug Utilisation Sub-Committee of the Australian Pharmaceutical Benefits Advisory Committee.

Please visit the NSW TAG website for further information about DUE and other NSW TAG related activities ([www.nswtag.com.au](http://www.nswtag.com.au)).