
Towards a Single Drug Formulary for WA

Western Australian Therapeutic Advisory Group Sponsored Workshop

28 April 2008

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1. Executive Summary

In April 2008, the Western Australian Therapeutic Advisory Group (WATAG) sponsored a workshop to promote discussion and identify issues relevant to the concept of a single state wide formulary. The workshop was attended by 48 participants representing metropolitan and rural services, private and public hospitals and a range of professional groups. Guests from Queensland Health were invited to share their experiences and insights working with a Standard Drug List.

The following working definitions were tabled at the workshop to clarify the difference between a drug catalogue, a drug list and a drug formulary.

Drug Formulary:

A current list of preferred medications and related information, evaluated and approved by a formal clinical process, for use in the treatment of disease and promotion of health within a healthcare organisation.

Drug List:

A simple listing of approved or unapproved drugs potentially available for use within a healthcare organisation without necessarily containing information on restrictions and conditions for using these drugs. A drug list is a sub-set selected from the drug catalogue.

Drug Catalogue:

A comprehensive list of uniquely identified drugs and therapeutic products available within a market

Workshop participants identified a range of possible objectives for a single formulary, the most commonly noted objective being to improve equity of access to drugs for patients. Other objectives related to improved efficiency through reduced duplication and streamlining of processes and improved patient outcomes through promotion of best practice in prescribing.

It was noted that Key Performance Indicators (KPIs) should be considered when establishing a single formulary and that baseline measures should be established prior to the commencement of a single formulary. Possible measures of success of a single formulary were identified as including cost containment, prescriber compliance with drug restrictions and indications, number of request for drugs outside the single formulary, prescriber satisfaction, patient outcomes and access to drugs.

Workshop participants identified a range of possible criteria for including new products on the formulary, the most commonly noted criterion being cost effectiveness, followed by clinical effectiveness and evidence base. It was also noted that a formal process of approval by an expert (clinical) committee would be required and that there would need to be active management of the formulary to add, update and remove drugs.

It was noted that there may need to be formulary governance arrangements at both a state wide level and at a local service level. It was suggested that responsibility for the development, implementation and operation of a single formulary should rest with a body funded by the health system and capable of independent decision making. The most commonly suggested line of accountability for this group was to the Chief Medical Officer.

It was suggested that access to drugs on the formulary could be determined by the use of defined algorithms based on prescribed specialty and / or experience and defined by standardised, state wide evidence based criteria. Guided prescriber order entry could be supported through appropriate e-systems.

It was noted that specific groups, for example regional and remote services and paediatrics, would need special consideration and that this would require consultation with relevant experts. A further suggestion to facilitate the use and operation of a single formulary across different settings and specialty areas was to establish a 'capability framework' that took into account the capabilities of various primary, secondary and tertiary facilities.

The possible impact of a single formulary on purchasing and warehousing were considered with potential benefits and potential problems identified. With respect to purchasing, some suggested that maintaining market competition would not be an issue and that there was limited market competition at present. Others noted that market competition would be hard to maintain and that in the long term, there would be a

reduction in competition and therefore cost increases may occur. With respect to warehousing, it was noted that the impact of a single formulary would depend on the warehousing model implemented and that a single formulary did not necessarily require establishment of a single warehousing approach.

There was strong support for a single formulary to be widely available in a regularly updated electronic format with functions including search, cross referencing, sort, security and links to other relevant systems and information. There was divided opinion regarding the need for a hard copy format. A range of Information Technology issues were identified including the requirements of the operating platform and availability and stability of the system.

A number of existing drug coding standards were identified as possible options for WA. It was noted that the coding standard would depend on the IT platform used and should be considered at the time the new IT system is introduced.

Resources in the form of funding, staff skills and space were all noted as required for the establishment and maintenance of a single formulary. The range of skills and professional roles required included Clinical Pharmacology, medical specialties, administrative support, pharmacy and IT support.

In terms of the timeframe for implementing a single formulary, it was suggested that the following would need to be in place prior to introducing a single formulary:

- The formulary governance structure.
- Adequate resources.
- Baseline measurement of indicators.
- IT capable of delivering formulary throughout the state.

2. Introduction

A review of WA public hospital pharmacy departments undertaken in 2004 recommended development of a state wide electronic formulary.¹ Recommendations of this review were endorsed by the Health Reform Committee in March 2004.²

In keeping with its role to encourage the safe, appropriate and cost effective use of therapeutic drugs in WA, the Western Australian Therapeutic Advisory Group (WATAG) sponsored a workshop to promote discussion and identify issues relevant to the concept of a single state wide formulary.

The workshop was held on Monday 28 April 2008 and was attended by 48 participants representing metropolitan and rural services, private and public hospitals and a range of professional groups including pharmacy, medicine, nursing, Information Technology, procurement and management. Guests from Queensland Health were also invited to share their experiences and insights working with a Standard Drug List.

During the morning sessions, papers were presented on the current arrangements in place in WA, relevant health reform agendas at both state and national level and the operation of the Queensland Health Standard Drug List as an example of a state wide formulary model. The afternoon sessions were dedicated to round table discussions of issues related to the possible purpose and governance of a single formulary and the associated clinical and business processes that would need to be considered. A copy of the program is included in Appendix One. A copy of questions used in round table discussions is included in Appendix Two.

Following is a summary of information and ideas raised during the workshop by participants who were available to contribute to round table discussions. Not all participants were able to attend the afternoon session.

¹ Review of Public Hospital Pharmacy Departments in Western Australia, D Aldous, January 2004

² A Healthy Future for Western Australians, Report of the Health Reform Committee March 2004

3. Current Arrangements

Strengths, weakness, opportunities and risks/threats were identified by participants through group discussion. The opinions expressed by participants regarding current arrangements in WA were as follows:

3.1 Strengths

Aspects of current arrangements that work well and that the system would not want to lose with any proposed changes.

- The Western Australian Drug Evaluation Panel (WADEP), a sub committee of WATAG, provides a framework for the assessment of high cost drugs that works well as it:
 - reduces the evaluation workload on hospital Drug and Therapeutic Committees (DTCs).
 - provides leadership; and
 - ensures the limited number of people with the necessary expertise are able to focus on relevant evaluations.
- Current arrangements allow flexibility between hospitals.
- For paediatrics, the PMH DTC have the necessary skills and expertise with respect to paediatric drug use which is complemented by the WATAG and WADEP processes and expertise.
- Foodstuffs and nutritional products are not currently included in the drug contracting process.

3.2 Weaknesses

Aspects of current arrangements that do not work well and that need to be improved.

- The resources needed to assess drugs at each individual hospital is significant and represents duplication of effort in some cases.
- In some locations, the high turnover of staff in key positions for drug evaluation and approval results in a large range of drugs being procured. This can result in stock wastage, pressure on storage and confusion regarding usage.
- Access to products is not the same in all locations leading to:
 - delays in care if prescriptions for alternative drugs need to be obtained;
 - physician frustration with rework; and
 - waste of clinical effort.
- There is, in some circumstances, a lack of evidence to support the use of drugs (eg in palliative care).

3.3 Opportunities

Trends, circumstances or events that could be taken advantage of.

- A number of hospitals have specialist expertise in terms of drug evaluation / assessment. There is an opportunity to create stronger links and communication across hospital boundaries to enhance drug evaluation processes and reduce duplication of effort.
- Funding is available for innovation.
- Developments in Information Technology area could be harnessed to provide improved decision support for therapeutic drug use.
- Developments in networking of Information Technology systems could enhance communication between WA public health services and private providers, the Commonwealth and other relevant agencies and organisations.
- As the Area Health Services and WA Health structures and processes mature there is an opportunity to develop greater consistency across the state, particularly across rural areas.
- There is an opportunity to provide better drug related education and induction for staff new to WA Health services (RMOs, Registrars and International Medical Graduates (IMGs) who may work across different sites over time.
- There is an opportunity for WA Health services to work more closely together in collating data that could provide evidence regarding drug use and efficacy.
- There is an opportunity to clarify evaluation processes for drug related devices and other products.

3.4 Risks or Threats

Risks associated with current arrangements or things that could cause the system to fail.

- Differences in the prescribing culture and expectations of public and private clinicians. Where there are no restrictions on the drugs that may be prescribed, risks can arise with respect to supply, storage, wastage, correct usage.
- Differences in the terminology and names of drugs used can lead to confusion and increase the risk of error.
- Current arrangements (eg WATAG & hospital Drug and Therapeutic Committees) rely on a few individuals with the necessary expertise who are willing to voluntarily fulfil key roles on governance committees. Sustainability of the system is at risk if key individuals are unable to continue these roles.
- As prescribing rights are extended, there will be a broader range of professional groups (eg nurses) navigating the different and inconsistent processes in place across WA health services. This may increase the risk of error.

4. Towards a Single Formulary for WA

4.1 Definitions, Objectives and Principles

The following working definitions were tabled at the workshop to clarify the difference between a drug catalogue, a drug list and a drug formulary.

Drug Formulary:

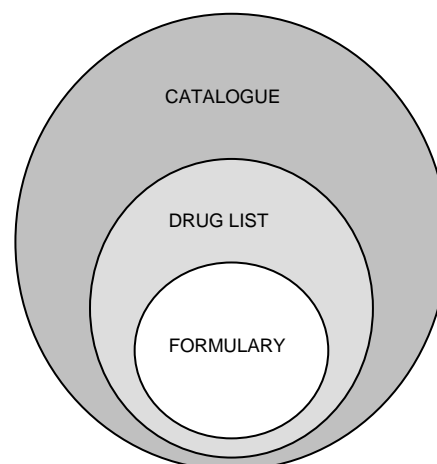
A current list of preferred medications and related information, evaluated and approved by a formal clinical process, for use in the treatment of disease and promotion of health within a healthcare organisation.

Drug List:

A simple listing of approved or unapproved drugs potentially available for use within a healthcare organisation without necessarily containing information on restrictions and conditions for using these drugs. A drug list is a sub-set selected from the drug catalogue.

Drug Catalogue:

A comprehensive list of uniquely identified drugs and therapeutic products available within a market.



It was noted that if a single formulary is to be established for WA, products for inclusion on the formulary would need to be considered from a range of existing catalogues, lists and formularies.

4.2 Suggested Objectives of a Single Formulary

Workshop participants identified the following possible reasons for establishing a single formulary or things that might be achieved with a single formulary. The most commonly mentioned reason was to improve equity of access to drugs for patients.

- Promote Quality Use of Medicines: safety, access, appropriateness, consumer participation, efficiency, effectiveness.
- Safety
 - Improve safety by reducing variation in availability.
- Access
 - Ensure equity of access to drugs for patients.
 - Ensure availability of optimal therapies for all patients.
- Appropriateness
 - Restrict drug usage to appropriate indications.
 - Promote therapeutic comparisons to enable selection of the most appropriate agents.
 - Common clinical pathways and governance.
 - Best clinical practice.
- Efficiency
 - Ensure cost effectiveness.
 - Cost control over all sites tendering.
 - Cost effectiveness and efficacy assessed for each drug.
 - Improve efficiency
 - Streamline duplication of resources
 - Avoid duplication – DTCs – have one entity (need to maintain local autonomy)
 - Reduce duplication over all hospitals.
- Effectiveness
 - Patient outcomes
 - Focus on effective prescribing
 - Best possible outcomes
- Consistency
 - Streamline prescribing – consistent approach

- Simplification.
 - Simplification of staff education.
- Standardisation.
 - Standardisation of drugs across hospitals
- Support for training – junior doctors' skill levels.
- Get specialties to make coordinated decisions.
- Address issues associated with country health services.
- Data reporting - IT system that can report on all this data.
- Reduce drug company influence on prescribing.
- Continuity of care.

It was also noted that:

- For patients admitted on established medication regimes, need to retain the capacity to continue those drugs.
- A single formulary may not improve access to drugs in all circumstances.
- A single formulary may make it easier to achieve other health initiatives.

4.3 Suggested Measures of Success for a Single Formulary

It was noted that Key Performance Indicators (KPIs) should be considered when establishing a single formulary.

Possible measures of the success of a single formulary were identified as:

- Cost containment.
 - with reinvestment of funds
 - economic trends
 - cost per patient episode / bed days.
 - cost savings – price /tender reductions (to cover administrative costs).
 - reduced inventory costs
- Clinician compliance with drug restrictions / indications
- No disadvantage to patients requiring drugs outside the formulary.
 - Number of Individual Patient Approvals
 - % of drugs ordered but not on the formulary (need to analyse reasons)
- Prescriber / staff satisfaction
- Patient / health outcomes
 - More uniform over state (safety)
 - Less medication errors. (AIMS reports)
- Patients gain access to drugs in a timely fashion.
- Performance of drug in use compared to what was stated in application.
- Improved utilisation.
- Number of drug items on formulary (list size) – groups of drugs.
- Formulary that is easy to use and understand.

It was noted that what ever measures are to be used to assess the impact of the formulary need to be measured before implementation to provide a baseline for comparison.

4.4 Suggested Products to be Included on a Single Formulary

The point was made that products for inclusion should be decided by a committee, and that they should meet whatever definition /criteria is established for inclusion.

All PBS Drugs

There was divided opinion on inclusion of all PBS drugs. It was noted that inclusion of all PBS drugs may result in a loss of negotiating power.

All hospital (DTC) approved drugs

There was some support for inclusion of all hospital DTC approved drugs. However, some respondents noted that this should be subject to review and determined by the committee that oversees the formulary. There was a further suggestion that the common items from current formularies at the three major metropolitan hospitals should be identified.

SAS drugs

There was little support noted for inclusion of SAS drugs. It was noted that these could be dealt with via IPAs. One suggestion noted that selected SAS drugs (eg cyclizine, dapsone) could be included on the single formulary with controlled authority procedures. There was a further suggestion that SAS drugs particular to each hospital could be on a drug list but not on the single formulary.

Trial Drugs

There was no support noted for inclusion of trial drugs on the single formulary.

Restricted Drugs

There was little support noted for inclusion of restricted drugs. It was noted that restrictions should be included in the formulary if these drugs were to be included.

Total Parenteral Nutrition (TPN)

There was divided opinion on inclusion of TPN. Some support was noted for inclusion of base solutions and for inclusion of TPN for country hospitals.

Haematological Products

It was suggested that this should be referred to the committee overseeing the formulary. Support for inclusion was noted if pharmacy was to be responsible for buying these products. The alternative view noted was that these are state controlled and should not be included on the formulary.

Fluids

There was divided opinion on the inclusion of fluids on a single formulary. Some support was noted for inclusion of specific fluids, possibly potassium containing, dialysis, blood expanders and heparin containing

Other

Other products noted as possible inclusions on a single formulary were:

- Drug eluting stents
- Intrauterine Devices
- All medicines registered by Therapeutic Goods Administration have the potential to be on the formulary.

4.5 Suggested Criteria for Including New Products on the Formulary

Workshop participants identified the following possible criteria for including new products on the formulary. The most commonly noted criterion was cost effectiveness, followed by clinical effectiveness and evidence base.

- Cost effectiveness
- Enhanced clinical outcomes / clinical effectiveness (with respect to comparable product)
- Evidence base – indications, new evidence
- Significant advance in therapy
- Clinical need / unmet need
- The only product that will work for a particular condition
- Safety
- Availability – easily obtained and reasonable shelf life
- Approved products
- Addition to PBS
- Physician request

It was also noted that:

- A formal process of approval by an expert (clinical) committee would be required.
- There would need to be active management of replaced drugs with deletion of replaced drugs from the formulary.

Conflict of interest was also noted but not elaborated upon

4.6 Product Information to be Included on the Formulary

Most tables supported inclusion of the following information:

- composition
- strength
- dose
- generic and/or trade names
- indications
- restrictions
 - wording will be important
 - eg micro approval
- clinical guidelines
- consumer medication information (CMI) sheets
 - should include off-label use.

Other information suggested for inclusion on the formulary included:

- interactions
 - including complementary treatments.
 - IV compatibilities.
- warnings
- administration
- formulation – injection, tablet, capsule
- treatment regime
- monitoring (eg pathology tests)
- colour photo / identification
- PBS listing
- S100
- storage information
- bioequivalence to allow comparison of drugs

It was noted that all information should be available on the formulary but that an electronic system would enforce restrictions on access to information based on a person's role / prescribing rights.

4.7 Governance Options

It was noted that there may need to be governance arrangements at both a macro (state wide) level and at a micro (local/regional) level.

It was suggested that responsibility for the development, implementation and operation of a single formulary should rest with a body funded by the health system and capable of independent decision making. Ideas regarding membership included representatives from:

- a variety of specialties and disciplines;
- rural GPs;
- Health Networks (clinical leads);
- public and private;
- possibly consumers.

Options identified for this body included:

- modified WATAG
- expanded WADEP (Perhaps the WA Drug Evaluation and Economic Rationalisation – WADEVER!)
- clinical network for medicines management
- PBAC
- a new committee
- a new statutory body - State Drug Authority (with salaried position)

The most commonly suggested line of accountability for this group was to the Chief Medical Officer. Other options for accountability were to the Director General and directly to the Minister for Health.

4.7.1 Responsibility for Product Evaluation

Options identified included:

- WADEP – because this group had the expertise required. Some suggested for high cost only with tender process for others. Some suggested WADEP for non PBS drugs only. Some suggested WADEP for all drugs.
- A central Medical Advisory Committee
- A collection of appropriate speciality subgroups eg groups that are responsible for defined specialties (eg for psychotropic drugs)

4.7.2 Responsibility for Individual Patient Approvals (IPAs) and Off-Label Drug Use

The most common suggestion was for IPAs and Off Label Drug Use remaining the responsibility of individual hospitals (DTCs) because of their local knowledge and the need for rapid response.

An alternative model suggested IPAs would go to relevant expert sub committees of WADEP/WATAG and be referred back to the relevant Medical Director to approve on a local basis.

Other points raised:

- The IPA system needs to be standardised across the whole health system.
- Individual hospital IPA processes would all use predetermined criteria.
- Hospital DTCs would be accountable to and communicate with the state formulary committee regarding IPAs.
- Ideally IPA processes would be supported by an electronic decision making process.
- Initial use would trigger the IPA process.

4.7.3 Responsibility for Monitoring and Review of Drug Use

It was noted that drug use evaluation (DUE) would be required at both the local hospital and state-wide level.

Suggestions for state-wide DUE included:

- Establishing a state-wide Drug Usage and Evaluation Group responsible for audit and review.
- Making the group with state-wide reasonability for the formulary responsible for managing DUEs to ensure appropriate use of medications and allow re-evaluation of listings as required.
- Establishing a State Drug Authority that co-ordinates local hospitals

Suggestions for local DUE included:

- Hospitals and hospital DTCs.
- Pharmacists with access to appropriate data.

3.7.4 Possible Governance Structures

Formulary governance structures were designed by workshop participants. These are available on request.

4.8 Use of the Formulary

The following groups, in no apparent order, were identified as potential users a single formulary:

- all state government health system employees.
- clinicians (doctors)
- pharmacist
- pharmacy technicians
- nurses
- nurse practitioners
- other health care professionals
- students
- hospital administrators
- it support
- HCN
- eHealth
- senior GPs
- patients
- private/public hospitals - prescribers may use formulary differently according to whether treating a private or public patient. It was suggested that non involvement of private hospitals could reduce the benefit of a single formulary.

It was suggested a single formulary could be used by these groups for:

- education
- prescribing within controlled limits
- accessing information about guidelines, indications, restrictions, drug selection, cost effectiveness, availability of drugs etc)
- audit
- clinical review
- DUE
- management purposes (as a management tool)

4.9 Drug Rationing

The concept of drug rationing was interpreted in different ways.

Controlling Prescriber Access to Medications

It was suggested that access to drugs could be determined by the use of defined algorithms based on prescribed specialty and / or experience and defined by standardised, state wide evidence based criteria.

Criteria suggested were clinical indication and efficacy with drug cost a secondary consideration. With respect to costs, it was suggested that a level of control within system would be needed for prescribing high cost drugs (eg more than \$10,000) with a separate body responsible for this. Some support for generic wherever possible. It was queried whether PBS would allow substitution with other generic drugs. The use of PBS drugs for non PBS indications was also queried. It was also noted that the skill / experience level of prescribers would need to be considered in setting access criteria.

Guided prescriber order entry could be supported through appropriate e-systems.

It was suggested these procedures could promote safety and efficiency and ensure equity of access.

Matching Resources with Demand

For example, in emergency situations the state would need to determine which hospital gets how much of each drug

Drug wastage issues were noted with the suggestion that recycling could be considered if storage conditions/requirements are met and if there are no legal issues.

4.10 Groups or Situations Needing Special consideration

It was noted that all of the specific groups identified below require special consideration and that this should be undertaken by WATAG / WADEP with referral to expert subcommittees as required. Issues should be considered on a case by case basis. A further suggestion was to establish a 'capability framework' that took into account the capabilities of various primary, secondary and tertiary facilities.

Specific issues noted for special groups or situations were as follows.

Regional and Remote Services

- drug access and availability
- cost of access (travel, monetary)
- access to pharmacies
- education
- information
- equality for services
- budget allowances
- disease epidemiology
- longer acting preparations if available
- storage conditions

Aboriginal Medical Service

- long acting v short acting
- access and availability
- appropriate patient information

Paediatrics

- off-label use
- paediatric specialists to approve paediatric formulary
- formulations

General Practitioners

- communication (eg between primary and tertiary health)
- acceptance of a formulary
- work with AMA/divisions of GPs
- after hours access
- support for prescribing
- education information (eg on what's available and rural considerations)
- PBS listed

Community Based Health Care Providers

- access of drugs/availability
- after hours access
- education, special population considerations within community
- frequency of administration
- storage conditions

Palliative Care

- access of drugs/availability
- long v short acting
- education
- after hours access/support
- drug storage and disposal (eg opioids)
- off-label use

Hospital In The Home

- access to appropriate antibiotic selection within a formulary
- ease of administration of drug at patient level
- storage conditions

Other

- pregnancy
- breast feeding

4.11 Possible Impact of a Single Formulary on Procurement Processes.

Potential benefits identified included:	Potential problems identified included:
<ul style="list-style-type: none"> ▪ Integrated list ▪ Increased buying power ▪ Potential to negotiate better prices/tender ▪ Pricing advantages ▪ Could bring price of individual items down ▪ Consolidate purchasing into fewer products could: <ul style="list-style-type: none"> ○ reduce costs ○ simplify procurement analysis ▪ Potential savings by reducing extent of choices, eg from 10 to 2 ACE inhibitors ▪ Improve tender process ▪ Enable tendering process for other drugs now bought by individual hospitals ▪ Streamlined process ▪ Improved efficiency ▪ May have storage at a central site ▪ Projection of potential purchasers ▪ Managing data ▪ Choice of preferred agent ▪ Increase availability of drugs 	<ul style="list-style-type: none"> ▪ Supply chain problems / interruption ▪ Affect market competition (companies lose interest) ▪ Limited number of drugs available ▪ Dictated by cost ▪ Cost implications <ul style="list-style-type: none"> ○ resources ○ staff ○ IT support ▪ Ability of voluntary committee to fulfil roles/workload ▪ Consolidate purchasing into fewer products could result in: <ul style="list-style-type: none"> ○ lack of alternative supply ○ changeover of lines from one product to another ▪ Reduction in the number of drug providers may mean less ability to respond to emergency situations. ▪ Could increase stock holdings ▪ Could decrease efficiency ▪ More exposure to problems with out of stock issues - particularly with isolation of Perth ▪ Loss of advantages with individual hospital deals ▪ Customer choice ▪ Retraining if a class of drug changed

4.11.1 Maintaining Market Competition in Contract and Supply

Suggested strategies for maintaining market competition included:

- Competent drug evaluation
- Consider factors/principles currently used.
- High volume drugs - increased purchasing power
- Allow companies to compete with prices.
- Change to tenders for therapeutic classes eg ACE inhibitors rather than individual drugs

Some suggested that:

- Maintaining market competition would not be an issue and that there was limited market competition at present.
- Market competition would be hard to maintain.
- In the long term, there would be a reduction in competition and therefore cost increases may occur further down the track.

4.12 Possible Impact of a Single Formulary on Warehousing.

Some indicated the impact on warehousing was irrelevant. Others noted that the impact on warehousing would depend on the warehousing model implemented. The question was raised whether a single formulary implied a central supply model. Some potential benefits and problems identified related specifically to central warehousing.

Potential benefits identified included:	Potential problems identified included:
<ul style="list-style-type: none"> ▪ Potential to decrease storage requirements ▪ Expiry of drugs is less ▪ Shifting drugs to other sites before expiration ▪ Potential for just in time stock / ordering ▪ Simplified stock control and ordering ▪ Reduced number of lines ▪ Reduced picking errors <ul style="list-style-type: none"> ○ stock ○ administration on wards ▪ Better use of ward imprest space (small benefit) 	<ul style="list-style-type: none"> ▪ Contingency for supply ▪ Potential 'out of stock problems' and supply issues ▪ None except in case of drug recall ▪ Extended changeover period when changing product ▪ Lack of access to drugs at 3am ▪ Overstock at hospital to cater for logistic problems from central warehousing ▪ Increased cost - currently it is free to hospital from wholesaler for the drug ▪ Currently 2 suppliers stock products and provide free of charge - single warehouse might transfer this workload ▪ Logistic potential ▪ Potential to increase storage requirements

4.13 Formulary Format

All tables supported an electronic formulary. There was a suggestion that this should be available to all from an authoritative source. It was also suggested that the electronic format should be updated monthly.

There was divided opinion regarding a hard copy format. It was suggested that some staff prefer hard copy. It was also suggestion that a hard copy format should be updated annually.

Other formats for consideration were noted as including:

- embedded within PMA, CIS
- PDA, wireless

4.13.1 Electronic Formulary Features

Search

All supported a search feature. It was noted that a common system for naming drugs would be needed.

Cross-referencing

Almost all supported a cross referencing feature.

Sort

All supported a sort feature. Suggestions included:

- trade name
- generic
- class
- specialty
- drug group

Security

Most supported security features. It was suggested that a read only access facility should be available. Other security issues noted included network security and security to update the system.

Links to other systems or information.

All supported links to other systems or information. Suggestions included:

- TOPAS
- Intranet
- iSoft
- Clinical information system
- Clinical decision support system
- Service providers (eg Silver Chain)
- PBS
- EMIMS
- Prescribing information / electronic prescribing
- Dispensing system
- Financial system

Other features suggested included:

- Accessible by all dimensions
 - brand
 - active ingredient
 - indication
 - protocol
- Availability at the point of prescribing (patient bedside, clinician suite, clinic)

4.13.2 IT Issues to be Considered

In addition to the above features, the following IT issues were noted as requiring consideration.

- An electronic formulary would need to be:
 - adaptable and have the capacity for upgrade of functions;
 - able to support updates across the system;
 - user friendly;
 - accessible and available state wide 24 x 7;
 - consistently fast (speed of system);
 - compatible with other IT systems; and
 - easily linked to other systems, particularly electronic prescribing.
- Needs to be XML (not html) format with agreed tags for:
 - interactions;
 - warnings;
 - drug dosage ranges; and
 - disease warnings.(Document Object Model)
- IT training and IT staff support needs to be available.
- Significant IT infrastructure will be needed.
- Decision support.
- Speed of progress.
- Funding.
- Audit of data.
- IT should provide for current and future requirements of pharmacy services.

4.14 Establishing a Drug Coding Standard for WA Health

Existing coding standards identified as possible options for WA included:

- NSV (universal standard)
- BNF (universal standard)
- AMH
- NEHTA (national standard)
- GTINS

It was suggested that:

- coding should be under the name of the drug and that a standard way of cataloguing is needed;
- the coding standard would depend on the IT platform used and should be considered at the time the new IT system is introduced;
- there are different perspectives to balance, for example prescribers (generic) vs purchasers (proprietary);
- adequate resourcing would be required; and
- bar-coding could be considered.

4.15 Resources to Set up and Maintain a Single Formulary

The types of resources identified as required (in addition to the governance arrangements noted earlier) included:

Funding

It was suggested that funding would need to be from a common source.

Staffing

It was suggested that dedicated staff would be required and that these may be available from redeployment. The range of skills / professional roles required included:

- Clinical Pharmacologist
- Medical – specialist input coopted as needed (eg paediatrics)
- Administrative support
- Pharmacists (one suggestion of 2 pharmacists required)
- IT support

Space

Co – location with a tertiary hospital was suggested.

It was suggested that, once established, consideration would need to be given to the ease by which drugs can be added/updated/replaced/removed from the formulary.

4.16 Timing Issues

The following activities were identified as needing to be in place prior to introducing a single formulary:

- The formulary governance structure
- Adequate resources.
- Baseline measurement of indicators to support the case for change.
- IT capable of delivering formulary throughout the state

Some suggested a state-wide pharmacy application would need to be implemented prior to a single formulary and an alternative suggestion was that a single formulary would need to be in place first.

Some suggested a single state-wide PMA application would need to be implemented prior to a formulary and an alternative suggestion was that these systems would need to be implemented in conjunction with each other.

Some suggestion that an initial draft could be considered by December 2008 (reference given to 2005 Business Case prepared by H Lovitt). An alternative suggestion was 2020.

5. Appendix One: Workshop Program

Towards a Single Drug Formulary for WA

A professional workshop to discuss the merits and disadvantages of a single hospital formulary in WA.

8:15am	Registration
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8:45am	D McGuinness - Welcome and Introduction
8:50am	PK Loh – Opening Remarks
<i>The first morning session will examine current formulary-related practices in WA hospitals</i>	
9:00am	A Millar – Context of a state-wide formulary in WA
9:15am	J Benzie – WA Health drug contract process
9:30am	J Williamson –High-cost drugs, off-label drugs and individual patient approval formulary processes
9:45am	S Towler – WA Health Reforms and the proposal for a single formulary
10:00am	Panel Discussion – Strength, Weakness, Opportunities and Risks of current formulary management in WA

10:30am	Morning Break
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The second morning session will examine factors influencing the call for change in current formulary practices. This will include presentations by invited interstate speakers, describing the Queensland Health Standard Drug List (SDL) recommended as a model for reform in WA.

11:00am	H Lovitt – IT reforms and the need for a drug list or formulary
11:20am	A Petrie & D Aldous – Operation and function of the QH SDL
12:00am	P Kubler – Medical clinician’s view of working with the QH SDL
12:15pm	Questions and Answers

12:30pm	Lunch
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1:30pm	Round-table workshop to discuss the hypothetical develop of a single formulary Facilitated by D McGuinness
	a) Review the meaning, principles and objectives of a single formulary
	b) Examine the clinical and governance issues and processes required to establish, operate and maintain a single drug formulary

3:00pm	Afternoon Break
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3:30pm	c) Examine the support issues and processes (eg IT, procurement, supply and resource requirements) associated with a single drug formulary
4:15pm	D McGuinness – Wrap up
4 30 pm	PK Loh close

6. Appendix Two: Discussion Questions

Part a). Definition, Principles and Objectives

Why? Why establish a single formulary? What do we want to achieve?
How will we know the formulary is worthwhile?
What 3 things would you measure to determine the formulary's success?

What? What products should be included on the formulary?
all PBS drugs?
all hospital (DTC) approved drugs?
SAS drugs?
trial drugs?
restricted drugs?
TPN?
haematological products?
fluids?
other products?

What? What criteria would you use for including new products on the formulary?

What? What product information would you include on a single formulary?
composition?
strength?
dose?
generic and/or trade names
indications?
restrictions?
clinical guidelines?
patient information sheets (CMI)?
other?

Part b). Clinical and Governance Issues and Processes

Who? Who (group / body / individual) should be responsible for the development, implementation and operation of a single formulary?
Who should they be accountable to?
Who should be responsible for product evaluation? Why?
Who should be responsible for IPAs and off label drug use? Why?
Who should be responsible for monitoring and review of drug use (DUE)? Why?

Who? Draw a chart showing the roles and relationships of key groups in maintaining a single formulary. (consider Hospital DTCs, WATAG, WADEP)

Who? Who would use the formulary? What for?

How? How do you think drug rationing should occur?
there should be no drug rationing? best by clinical efficacy ?
generic wherever possible ? other?
cheapest only ? Why?
cheapest shortlist ?

How? What groups or situations would need special consideration?
What needs to be taken into account for each of these?
regional and remote services?
AMS?
paediatrics?
GPs?
community based health care providers?
HITH?
other?

Part c) Support Issues and Processes

How? How would a single formulary impact on procurement processes?
Potential benefits? Potential problems?
How could we maintain market competition in contracting and supply?

How? How would a single formulary impact on warehousing?
Potential benefits? Potential problems?

How? How should a single formulary be made available?
electronically?
hard copy?
both?
other?

What features would be important in an electronic format?
search?
cross-referencing?
sort?
security?
links to other systems or information? What?
other?

What IT issues need to be considered?

How? How should we develop a uniform coding standard for WA Health?
What are the issues associated with a uniform coding standard?
What existing coding systems could be considered?

How? How should a single formulary be supported?
What resources would be needed to set up and maintain a single formulary?

When? Are there any timing issues that need to be considered in terms of introducing a single formulary?

7. Appendix Three: List of Participants

First Name	Last Name	Position Title	Department	Organisation
Dianne	ALDOUS	Senior Director	Medication Services	Queensland Health
Frank	ANDINACH	Regional Pharmacist		Kalgoorlie Regional Hospital
Jennifer	BENZIE	Head of Department	Pharmacy	SCGH
Ann	BERWICK	DUAG pharmacist	Pharmacy	RPH
Judith	CIPRIANI	Proprietor	Pharmacy	Peel Health Campus
Janine	DICKSON	Application Support/Stores Officer - Pharmacy	InfoHealth/Pharmacy Department	DoH/RPH
John	DYER	Physician	Infectious Diseases	SMAHS
Gareth	GRIFFITHS	Project Officer	Cancer and Palliative Care Network	Health Department of WA
Joel	HEEG	Executive Officer	Pharmacy	SCGH
Sean	HOOD	Chairman		WAPDC
Julia	HOOK	Manager	Pharmacy	Peel Health Campus
Barry	JENKINS	Chief Pharmacist	Pharmacy	RPH
Ian	JOHNSTON	Chief Pharmacist		Swan Kalamunda Health Service
Stephen	KALYNIUK	Senior Business Analyst	eHealthWA	Fujitsu contractor
Rob	KIRK	Medical Director	Wheatbelt	WACHS
Judith	KRISTENSEN	Senior Pharmacist	Pharmacy KEMH	KEMH
Paul	KUBLER	Clinical Pharmacologist		Queensland Health
Glenda	LEE	Coordinator	DUAG	RPH
Sean	LEWIS	Business Development Manager	Pharmacy	Royal Perth Hospital
Stephen	LIM	Chief Pharmacist	Pharmacy	Armadale Health Service
P-K	LOH	Chairman	WATAG	RPH
Helen	LOVITT	Senior Pharmacist		eHealthWA
Daniel	LU	Clinical Pharmacist		Peel Health Campus
David	LYON	Executive Officer		WATAG
Nyree	MARR	Coordinator Dispensing Services	Pharmacy	Royal Perth Hospital
Louise	McCAULEY	Senior Pharmacist	Pharmacy	PMH

Amanda	McCUBBINE	Business Advisor, Pharmacy Project	Pharmacy Project, eHealthWA	Fujitsu Contractor
David	McGECHIE	Director	Pathology, Fremantle Hospital	PathWest
Kerry	McHALE	Executive Officer		WADEP
David	MELBOURNE	Senior Business Analyst		Health Corporate Network
Peter	MERRALLS	Chief Pharmacist	Pharmacy	Osborne Park Hospital
Alasdair	MILLAR	Chairman	WAMSG	RPH
Murray	PATTERSON	Chief Pharmacist		Department of Health
Craig	PATTERSON	Solution Architect	eHealthWA Pharmacy Project	Fujitsu
Andrew	PETRIE	Director	Medication Services	Queensland Health
Karen	PHILLIPS	Application Specialist - Pharmacy	InfoHEALTH	DoH
Robyn	RICHMOND	Manager	Strategic Development	HCN
Joanna	SADOWSKA	Consultant		eHealth WA
Diane	SAVILL	Senior Pharmacist	Pharmacy	Albany Hospital
Robyn	SILLA	Coordinator	DUAG	RPH
John	THOMPSON	Consultant Anaesthetist	Anaesthesia/ Drug Sub-Committee	Princess Margaret Hospital
Simon	TOWLER	Executive Director	Health Policy & Clinical Reform	WA Health
Judith	TRESHAM	Pharmacy Systems Coordinator	Pharmacy	KEMH & PMH
Margherita	VERONI	Coordinator		WAMSG
James	WILLIAMSON	Chairman	WADEP	SCGH
Stephen	WISNEWSKI- SMITH	Chief Executive		Peel Health Campus
Richard	WOJNAR HORTON	Chief Pharmacist	Pharmacy	FHHS
Colin	XANTHIS		A/Chief Information Officer	Department of Health
Patrick	YAPP	Chief Pharmacist	Department of Pharmacy	King Edward Memorial Hospital