

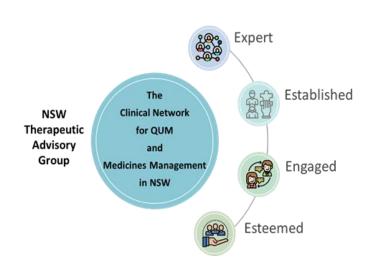
Advancing quality use of medicines in NSW

NSW Therapeutics Advisory Group (TAG) Report of Activity 2018-2021

NSW TAG has continued to advance the quality use of medicines (QUM) in NSW public hospitals during the 2018-2021 contract period. This has been made possible by the dedicated contribution of its network, its expert secretariat and its involvement in a number of projects and activities in NSW and Australia. This work is delivered with 2.6 FTE. NSW TAG's key achievements demonstrate its value as a clinical network whose relevance overlays many clinical therapeutic areas.

NSW TAG is the longest serving QUM organisation in Australia having supported QUM activities since 1988. NSW TAG has led numerous initiatives that have been adopted nationally. NSW Health has been acknowledged nationally and internationally through numerous forums for its support of NSW TAG and the work that NSW TAG has produced. This expertise in QUM has led to NSW TAG's involvement in two recently awarded Medical Research Future Fund grants targeting medication review and antipsychotic use in the older population.

During this contract period, NSW TAG has: supported NSW Health and Australia's pandemic response, shared information across the QUM clinical network, provided support for NSW Drug and Therapeutics Committees, developed a Sleep in Hospital Management Bundle, advanced QUM performance in NSW hospitals, advanced and maintained the provision of life-saving drug information, and collaborated with and supported eHealth NSW, the ACI, the CEC and Ministry of Health.



The key achievements in 2018-2021 are:

- + Support for NSW Health's pandemic response.
- + Information sharing activities across the clinical network
 - * Email discussions
 - * NSW TAG meetings
 - * Members' access-only repository for hospital/district-developed guidelines/protocols
 - * TAGMail
 - * NSW TAG Website

+ Support for DTC Decision-Making

- * DTC decision making register
- * DTC Forms
- * Managing conflicts of interest
- * Membership of the Rural Clinical Reference Group
- * Development of Guidance for NSW DTCs and clinicians
- * Support for national QUM and DTC initiatives
- + Development of the Sleep in Hospital Management Bundle.
- + Advancing QUM performance in NSW Hospitals
 - * Review of the National Quality Use of Medicine Indicators for Australian Hospitals
 - * Improving metabolic monitoring for patients taking antipsychotic medicines: Multisite project in Australian Hospitals
 - * Development and Publication of the Polypharmacy QUM Indicators including Deprescribing Guidance
- + Life Saving Drugs Registers (LSDRs)
- + Collaboration with eHealth NSW
- + Development of Medication Safety Guidance and Tools
 - * Medication Safety and Quality Initiatives
 - * QUM Issues Survey
- + Advice and support to Ministry of Health and pillars
 - * CFC
 - * Agency for Clinical Innovation (ACI)
 - * Ministry of Health

+ Submissions and Contributions to other Organisations

- * Australian Commission on Safety and Quality in Health Care (ACSQHC)
- * Department of Health
- * Therapeutic Goods Administration (TGA)
- * National Paediatric Medicines Formulary
- * Communications to TGA/ various pharmaceutical companies

Details about the key achievements are provided below.

1. Support for NSW Health's pandemic response.

NSW TAG has acted as the secretariat for the Drug and Therapeutics Advisory Community of Practice (DaTA-CoP). The Co-Chairs of the DaTA-CoP are Professor Sarah Hilmer and Ms Jenny Crane. NSW TAG has led the development of COVID-19-related treatment guidance for NSW Health clinicians, optimising use and governance of experimental and off-label medicines for COVID-19 in NSW hospitals and providing feedback to other areas within NSW Health including the CEC.

Specifically, NSW TAG has developed a number of resources for practical best practical management of COVID-19, which are available on the NSW TAG website. These include drug guidelines for dexamethasone, remdesivir and tocilizumab as well as patient information leaflets and consent forms, as applicable. Given the use of off-label or experimental medicines for COVID-19, resources for DTC approval and registry data collection of use and outcomes has also been developed and supported by NSW TAG.

In addition, the DaTA-CoP has been responsible for updating the NSW Health <u>Interim Guidance</u> on Use of Antiviral and Immunomodulation Therapy in COVID-19. We used the CATAG guiding principles for off-label use of medicines framework, engaging internal clinical pharmacology and pharmacy expertise of NSW TAG secretariat and members; as well as external specialist reviewers.

On behalf of the DaTA-CoP, NSW TAG provides a regularly updated list of medicines information enquiries related to COVID-19 pandemic received by NSW medicines information pharmacists on the DaTA CoP Sharepoint site as well as presentations to the DaTA CoP, updates on randomised controlled trials of COVID-19 treatments and vaccines, and other relevant information.

The DaTA CoP has broader membership than NSW TAG. Thirty meetings have now been held since its inception and are now held monthly. These meetings have enabled communications between DTCs, Directors of Pharmacy, the Chief Pharmacist, the private hospital pharmacy sector, the Society of Hospital Pharmacists of Australia (SHPA) NSW branch and the CEC. The meetings have also provided an opportunity for guest speakers to provide relevant information regarding COVID-19 management to members. These presentations by guest speakers have been enthusiastically received by DaTA-CoP members.

Prof Hilmer has presented the work of the DaTA CoP at the NSW Health Clinical Council about the DaTA-CoP's membership, scope of work and output; and on reporting of Adverse Events Following Immunisation (AEFI). DaTA-COP members have provided advice to the Ministry regarding COVID-19-related therapy enquiries and media releases e.g. ivermectin, and to other CoPs as they have developed their guidance documents, when relevant.

The value of the DaTA-CoP has been exemplified by its recognition in NSW, nationally and internationally. The NSW TAG team were awarded the SHPA NSW Branch 2020 Hospital Team Innovation Award. Dr Sasha Bennett also presented the work of the DaTA CoP at:

• SHPA Virtual Congress 2020: Coming together to combat COVID-19: a virtual community supporting quality medicines use in NSW hospitals

 Canadian Agency for Drugs and Technologies in Health Virtual Symposium 2020: Being COVIDsafe and MEDsafe: a virtual community optimising medicines use in Australian provincial hospitals

Dr Bennett will be presenting a poster at the International Forum on Quality and Safety in Healthcare 2021: *Being COVIDsafe and MEDsafe: a virtual community supporting quality medicines use in NSW hospitals* under the Building Capability and Leadership theme.

2. Information sharing activities across the clinical network

NSW TAG has been a critical support for information sharing across its clinical network. It has done this in a variety of ways:

a. Email discussions

Email discussions across the NSW TAG membership are undertaken when DTCs and frontline clinicians identify medicine-related issues. During 2018-2021 contract period, one-hundred and five email discussions have been undertaken. Topics are diverse and include information about local formulary listings, use of specific medicines for individuals, mitigation strategies to reduce potential harms from high risk medicines, identification and sharing of local guidelines, impact of policy directives, issues related to informed patient consent and issues related to medicine storage. These email discussions are shared with members and discussed at NSW TAG meetings.

b. NSW TAG meetings

Meetings are held six times a year. Separate meetings for members of rural and smaller metropolitan hospitals used to be held. However with the advent of the Rural Formulary and widespread uptake of virtual meeting technology, these TAG members have enthusiastically joined the large metropolitan hospital members in bi-monthly meetings. These meetings are a forum for information exchange, discussion of DTC decisions and other QUM-related issues. They assist identification of gaps in QUM management and assist NSW TAG develop strategies to address these gaps or advocate to others to assist addressing the gaps.

c. Members' access-only repository for hospital/district-developed guidelines/protocols

Access to these documents for members' consideration when they are developing local guidance/protocols.

d. TAGMail

TAGMail is a unique newsletter of pertinent QUM and medicines information for DTCs and clinicians working with medicines compiled by NSW TAG each week. The newsletter is distributed 48 weeks per year. Cumulative six-monthly lists of TAGMail items is housed on our website to assist readers to search for relevant articles. TAGMail is currently sent to 739 subscribers, who are responsible for sending to members of their department. No other newsletter has the broad coverage of QUM issues. NSW TAG is frequently thanked for providing this service.

TAGMail provides information on NSW TAG activities, CEC, ACI and Ministry of Health information and updates, NSW, national and international reports, updates regarding medication safety and peer-

reviewed articles of relevance to DTCs and clinicians involved in medicines management. Since 19 March 2020, TAGMail has included a section devoted to COVID-19 Resources and Articles of Interest.

e. NSW TAG Website

Approximately twenty thousand have visited the NSW TAG website in the 2021 Financial Year. Commonly accessed resources on the NSW TAG website include the Life Saving Drug Registers, National QUM Indicators, Deprescribing Tools, Cannabis medicines, High Risk medicine tools e.g. Know Your Insulin Poster, Opioid skin patches, COVID-19 Resources. Polypharmacy QUM Indicators and resources and Practical Guidance documents such as patient Self-Funding Discussion paper and Paracetamol Positions Statement, TAGMail and, Email Discussion listings. Referral sites to the NSW TAG website include NSW public hospital intranets, and the CEC, NPS MedicineWise, CATAG and educational institutions.

The top 10 countries visiting the NSW TAG website are Australia, the United States, the United Kingdom, India, Brazil, Canada, China, Vietnam, Spain and the Netherlands

3. Support for DTC Decision-Making

NSW TAG provides support for DTC decision-making in a numerous ways.

a. DTC decision making register

Decisions regarding formulary listings, individual patient use applications, guideline, policy/protocol and standing order development and approvals. And medication safety reports made by the larger DTCs in NSW are collated by NSW TAG on a bi-monthly basis.

During the contract period, DTCs of large NSW hospitals made over 8,000 decisions (this is an underestimate as not all hospitals report decisions due to lack of resources and not all of 2021 decisions received to date). Seventy-five percent of decisions were related to IPUs and less than 10% related to formulary decisions.

The decision-making registers enable identification of issues confronting DTCs as well as helping DTCs across NSW with their future decision-making. NSW TAG work informed by the DTC decision-making register includes development of resources for off-label rituximab.

b. DTC Forms

NSW TAG has ongoing role in updating and developing templates for DTCs to assist medicine applications, streamlined IPU application forms, consent forms for medicines use, patient/carer information leaflets, algorithms for specific medicine use. During 2018-2021, NSW TAG has updated the formulary submission template and the IPU application templates and developed streamline formulary application forms for various scenarios.

c. Managing conflicts of interest

NSW TAG published a Position Statement: *Pharmaceutical Industry And Hospital Staff Liaison In Public Hospitals* in 2008. A need to update the document was recognised and work began in 2018. During

2018-2021, NSW TAG collaborated with The University of Sydney researchers to explore conflicts of interest between Drug and Therapeutic Committee members and the pharmaceutical industry. The initial phase of the project produced a set of 27 Gold Standard criteria by which to evaluate potential for conflicts of interest (CoIs). The second phase scored Australian institutional and jurisdictional conflict of interest policies against these Gold Standard criteria. The gold standard criteria and scoring system effectively evaluated CoI policies. Policy rigour varied with professional societies tending to lower coverage of criteria and lower restriction scores. There were also significant differences between jurisdictional policies. The project found that the criteria and scoring system would provide a method by which CoI policy developers could assess the rigour of the policies that are developed.

Another project involving the same researchers used a qualitative methodology with individual interviews of 29 participants who were current or recent members of public hospital DTCs across New South Wales, Australia. Participants included medical, pharmacy and nursing staff and one citizen. Drug committee processes for oversight of medicines in public hospitals are vulnerable to pharmaceutical industry influence at several points. Applications for formulary additions are sometimes initiated and completed by company representatives. Conflict of interest disclosures among applicants and committee members may be incomplete. In some institutions, medicines are available from pharmaceutical companies without committee review, including through free samples and industry-supported medicines access programmes. Participants noticed the presence and impact of pharmaceutical company marketing activities to local clinicians, resulting in increased prescriber demand for products. The results of this study were presented to NSW TAG members in October 2020.

The work has resulted in one peer-reviewed publication:

- Parker L, Bennett A, Mintzes B, Grundy Q, Fabbri A, Karanges EA, Bero L. There are ways ...
 drug companies will get into DTC decisions": How Australian drug and therapeutics
 committees address pharmaceutical industry influence. BrJClinPharm 2020; 87:5:2341-2353;
 and, poster presentation:
- Evaluating Conflict of Interest policies to promote quality use of medicines in Australian hospitals at SHPA Medicines Management Conference, November 2019.

The next step of this project is for NSW TAG to work with our LHD members to use the information to develop resources for NSW hospitals. This is out of scope for 2021 and will require long-term funding.

d. Membership of the Rural Clinical Reference Group

This group is responsible for the Oversight of the Rural Formulary. Dr Bennett has been a member of this group since its inception. NSW TAG is supports the rural formulary a number of ways including email discussions, the DTC decision-making register, development of guidance documents. Rural members also attend TAG General meetings and DaTA CoP meetings.

e. Development of Guidance for NSW DTCs and clinicians

During 2018-2021, NSW TAG published the following guidance, reports and discussion papers:

- Off label Rituximab, May 2019: Further work in this challenging clinical area is continuing.
- Cannabis Medicines Use in Hospitals- Information Primer, Last updated February 2021

- Achieving optimal governance for radiological products. May 2021
- Activity Based Funding of medicines in Hospitals. Last updated in May 2021

f. Support for national QUM and DTC initiatives

NSW TAG is a member of and business manager of the Council of Australian Therapeutic Advisory groups (CATAG). During 2018-2021, NSW TAG has been a critical contributor to development of the following CATAG resources:

- Managing Medicines Access Programs: Guiding Principles for the governance of Medicines Access Programs in Australian hospitals. Version 2, June 2018 and related forms.
- Optimising My Health Record utilisation: CATAG Position statement on the use of My Health Record by Australian public hospitals. June 2021
- CATAG Position Statement on the use of low-dose methotrexate. October 2020
- Overseeing biosimilar use: Guiding Principles for the governance of biological and biosimilar medicines in Australian hospitals. (Updated version to be published July/Aug 2021)
- Guiding Principles for quality use of high cost medicines (due for publication in August/Sept 2021).
- Guiding Principles for medicines stewardship programs (due for publication in August/Sept 2021).

4. Development of the Sleep in Hospital Management Bundle.

In 2019, NSW TAG was commissioned by the Clinical Excellence Commission to develop a best practice guidance for the management of sleep in hospital patients, particularly focussing on the use of high risk medicines for sleep. The use of medicines for night sedation in hospital challenges each of the Australia's quality use of medicines (QUM) principles: judicious selection of management options; use of the appropriate medicine, when a medicine is indicated; and, the safe and effective use of medicines. To make any meaningful difference to current practice, the guidance needed to target each of these principles.

The Sleep in Hospital Management Bundle targets the management of sleep in hospitalised non-critically ill patients. It includes an evidence review and information, recommendations for system-and individual-level interventions to promote sleep and reduce harm and provides tools and resources for implementation, including patient information leaflet regarding sleep in hospital, a checklist for prescribers to assess harm: benefit balance in individual patients. Of note, there were no pre-existing algorithms to guide sleep management in treatment-naïve and non-naïve patients and they are key resources developed as part of this work.

The project has been overseen by a Steering Committee, which included CEC and ACI nominees and the NSW TAG Editorial Committee. The bundle was reviewed extensively by subject matter experts and key stakeholders. These reviewers have enthusiastically endorsed the intent and content of the Bundle.

NSW TAG has provided the Bundle to the CEC for final review as well as suggestions for implementation. Hospital interest is high for this guidance as night sedation is recognised as an

important accreditation area to demonstrate reduction in medication-related harm. We look forward to supporting the launch of the bundle and its implementation across NSW hospitals and nationally.

The work, *Optimising sleep for patients in Australian hospitals*, highlighting the key findings of the literature search and input from Australian hospitals and the Steering Committee, was showcased at the National Medicines Symposium 2020. The work has also been accepted for presentation, *Reducing harm when optimising sleep for patients in Australian Hospitals*, at the upcoming 2021 International Forum on Quality and Safety in HealthCare in Sydney.

5. Advancing QUM performance in NSW Hospitals

a. Review of the National Quality Use of Medicine Indicators for Australian Hospitals NSW TAG has a long history in supporting measurement of quality use of medicines (QUM) and has led the development of QUM indicators for QUM monitoring and quality improvement projects in NSW hospitals and nationally. NSW Therapeutic Advisory Group (TAG) first published Indicators for Drug and Therapeutics Committees in 1996 and in 2007, QUM indicators were developed and published as the Quality Use of Medicines (QUM) Indicators for Australian Hospitals with funding support from the NSW Health Clinical Excellence Commission (CEC). They were updated, expanded and 'nationalised' in 2014, funded by the Australian Commission on Safety and Quality in Health Care (ACSQHC). The ACSQHC and NSW TAG published the 37 indicators as the National QUM (NQUM) Indicators for Australian Hospitals on their websites. All three organisations, NW TAG, CEC and ACSQHC, have equity in the 37 indicators and changes require the permission of all three. NSW TAG has also liaised with Dr Peter Kennedy, eHealth NSW for indicator automation since the advent of electronic Medical Records into NSW public hospitals.

In 2020, given the continuous maturing of best practice clinical recommendations and evolving health service organisation (HSO) work practices, NSW TAG undertook a series of Australia-wide surveys to assess continuing relevance of each of the 37 NQUM Indicators, the need and prioritisation for automation of indicator data collection and recommendations for new indicators.

In late 2020, NSW TAG convened a steering committee of relevant stakeholders including the ACSQHC and CEC to review survey feedback. This demonstrated a continued need for the NQUM Indicators whilst highlighting gaps where revision and/or adaptation is required to align with existing best clinical practice and changing HSO needs. The ongoing transition by jurisdictions to electronic medication management systems (from paper medication charts) in addition to the emergent new priority themes including transitions of care, pain management and optimised mental healthcare were identified. The surveys highlighted the NQUM Indicators that should be prioritised for automation and areas where new indicators could be developed. NSW TAG is currently assisting eHealth NSW undertake a proof of concept project to test the viability of electronic data collection of some of the existing NQUM Indicators. The 2020 Review of the

National Quality use of Medicine Indicators for Australian Hospitals: Report on use, relevance and potential for automation using electronic medical records was published on the NSW TAG website during July 2021. This work was presented at the National Medicines Symposium in May 2021.

The NQUM Indicators support the accreditation activities of NSW hospitals. The Australian Council on Healthcare Standards (ACHS) has adopted 17 of the 37 NQUM Indicators as part of their medication safety clinical indicator set to assist public and private hospitals evaluate their performance. NSW TAG provides advice and commentary to the ACHS regarding these indicators and Dr Bennett is the Chair of the ACHS Medication Safety Clinical Indicator Working Party.

NSW TAG's role in QUM indicator development is un-matched given its extensive corporate knowledge of the process of indicator development and field-testing and the support of its existing network with experience in field-testing QUM indicators. NSW TAG plans to progress update, modification and development of QUM indicators in the future.

NSW TAG further supports QUM performance measurement with its support of frontline clinicians undertaking Medication Use Evaluations (MUEs) in NSW and ACT public hospitals. NSW TAG convenes a meeting of these clinicians a few time each year so that members can discuss projects they are undertaking, share ideas and solve problems. In 2020, NSW TAG undertook a survey of NSW, QLD and ACT hospitals to understand the issues confronting clinicians performing MUE activities. It is expected that a report of this survey will be published in August 2021.

b. Improving metabolic monitoring for patients taking antipsychotic medicines: Multisite project in Australian Hospitals

A mixed methods multisite study with a quality improvement framework using a pre-post design was coordinated by NSW TAG using NQUM Indicator 7.4: Percentage of patients taking antipsychotic medicines who receive appropriate monitoring for the development of metabolic side effects from 2016-2019. This research investigated the baseline adherence to best practice guidance regarding monitoring and the subsequent impact of any interventions, feedback, and education on adherence. The project had the additional aim of familiarising relevant Australian clinicians s with the NQUM Indicators for mental health, and the methodologies used to measure clinical performance, develop and implement quality improvement (QI) strategies and evaluate the success of QI interventions in clinical settings.

Overall, the adherence to the recommended metabolic monitoring set of parameters were largely unchanged and still exceptionally low despite improvement efforts. The study obtained rich qualitative detail about the challenges and gaps identified in performing adequate metabolic monitoring and has provided important data for participating sites to implement ongoing QI strategies as well as inform future research activities. This study will be the first to report on the state of metabolic monitoring in inpatients taking antipsychotic medicines using this indicator. The study provides strategies used by front-line clinicians across Australia and makes recommendations about how to improve and prioritise the physical health of patients taking

antipsychotics and reduce unwarranted variation in care. The study demonstrated a need for greater maturity of systems in the acute mental health care sector and sustained resources. There is a need for collective effort by clinicians, managers, and health executives to enable greater prioritisation of metabolic monitoring practices to be embedded in the culture and environment of mental health services.

Baseline audit results have been presented at the NPS MedicineWise National Medicines Symposium June 2018 and SHPA Medicines Management Conference Nov 2018. Dr Bennett and Dr Nick O'Connor also delivered a presentation to the NSW Mental health Benchmarking Forum in 2018.

A full project report as well as a journal article (for submission to a peer reviewed journal) have been drafted (for publication in the coming months) to assist in the dissemination of the research, and to enhance clinician and patient awareness of the issues, empowering them for change.

c. Development and Publication of the Polypharmacy QUM Indicators including Deprescribing Guidance

A further set of QUM Indicators targeting processes related to harm as a consequence of polypharmacy was published by NSW TAG in 2020. The 'Resource Kit for Measuring Strategies to Reduce Harm from Polypharmacy in Australian Hospitals: Quality Use of Medicines (QUM) Indicators, validated Patient Reported Experience Measures (PREMs) and Risk Stratification Tools' were funded by NSW TAG and the NSW Health Translational Research Grants project (TRG 274) 'Reducing Inappropriate Polypharmacy in Older Inpatients', led by Professor Sarah Hilmer. This work and other outputs from the TRG 274 are published on the NSW TAG website. This work demonstrates Australia's commitment to the WHO Global Patient Safety Challenge: Medication Without Harm. The work assists NSW hospitals with their accreditation activities related to the updated National Safety and Quality Health Service Standards (version 2), which introduce new requirements for identification and risk stratification for medication-related harm, comprehensive medication review during hospitalisation and post-discharge and enhanced continuity of medication of information at discharge in vulnerable populations. Included in this work is the development and publication of specific patient reported experience measures (PREMs), the first time medication-specific PREMs for patient awareness, shared decision-making and provision of information about in-hospital de-prescribing in hospital patients have been developed. An article describing the prospective multicentre observational study of the PREMs in deprescribing for hospitalised older patients is currently under review by a peer publication.

The tools developed for the Polypharmacy QUM Indicators, along with the Deprescribing Guidelines developed as part of the TRGS project, target gaps in the healthcare system and are housed on the NSW TAG website. NSW TAG website statistics show they are frequently visited and downloaded. The Sleep in Hospital Management Bundle also supports their uptake.

The risk stratification tools provide a method for frontline clinicians including clinical pharmacists to identify older patients at high risk of medication-related harm and have been promoted across

Australia. The Polypharmacy Indicators are being used to evaluate eHealth NSW pilot project using the Dug Burden Index in the Northern Sydney Central Coast domain. The resources developed with this work were presented to the Falls Neura Workshop in April 2021.

This work has been presented at the ACI Frailty Task Force in October 2020, at the National Medicine Symposium in November 2020, at the SHPA Virtual Congress in November 2020, at the Australian Deprescribing Network One-Day Conference in December 2019, to the CEC's Medication Safety Expert Advisory Committee in November 2019, and to Safer Care Victoria in November 2019. A poster of the literature review was presented at the National Medicines Symposium in 2018. A Report of the Project will be published on the NSW TAG website soon.

6. Life Saving Drugs Registers (LSDRs)

NSW TAG has collated stock and location information for the Life Saving Drugs Registers for antidotes and antivenoms since 1999. Surveys are undertaken annually with hospitals providing updates throughout the year. Since 2019, NSW TAG has worked closely with the ACI's Lead Application Developer to enable stock information to be included in iTRACC. The application with LSDR information went live in 2020 and NSW TAG supported NSW TAG member training of its use during 2020/21. A survey of the iTRACC application demonstrated that the antivenom and antidote data was reported as being the most important use of the iTRACC application (outranked all other features including blood product availability for which the application was originally developed).

NSW TAG reviews the contents of the LSDRs on an on-going basis and liaises with the Poisons Information Centre and NSW Health's Centre for Alcohol and Other Drugs. Information from these organisations are also distributed to NSW TAG members. During 2020/21, NSW TAG has also gathered and provided advice regarding N-acetylcysteine for paracetamol poisoning, methylene blue stockholdings, sodium benzoate and L-arginine for newborns with urea cycle disorder, funnel web spider antivenom and antidotes for intravenous anticoagulants.

In addition, a temporary COVID-19-related LSDR was published in 2021 to enable members to quickly locate specific medicines such as fondaparinux, a parenteral anticoagulant for use in Vaccine-induced Thrombotic Thrombocytopenia (VITT).

7. Collaboration with eHealth NSW

NSW TAG has a long history of working collaboratively with eHealth. eHealth provides a report of their activity to TAG meetings and there is mutual representation on a variety of working groups.

The Safety and Quality Oversight Committee and the Safety and Quality Advisory requested information on how eHealth NSW can support Dug and Therapeutics Committee governance over electronic medication management systems. The work was interrupted with the advent of COVID-19. Nevertheless, NSW TAG undertook a complex survey with DTC members during the first half of 2021. The survey investigated DTCs' ability to comply with PD 2019-050: Electronic Medication Management

System Governance and Standards and communication between eHealth and DTCs. The results are presently being analysed. The results will inform whether further exploration of issues will be required.

Our advocacy and collaboration with eHealth has resulted in a current proof-of-concept study for measurement of quality use of medicines using selected NQUM Indicators. The NSW TAG survey of NQUM Indicators in 2020 and input from the NSW TAG eMR QUM Working Group has been able to provide valuable insight for this ongoing project. Members of the NSW TAG eMR QUM group and medSMART group are members of the eHealth Design Working Group.

8. Development of Medication Safety Guidance and Tools

NSW TAG has had a long history in developing and supporting medication safety and quality initiatives, many of which are adopted nationally.

a. Medication Safety and Quality Initiatives

During the 2018-2021 period, NSW TAG developed a variety of resources for High Risk Medicines including:

- Minimising Medication-related Complications in Patients receiving Intravascular Iodinated Contrast. Last updated November 2019.
- Know Your Insulins poster (adapted from original work by Fiona Stanley Fremantle Hospitals Group, South Metropolitan Health Service. WA Govt). June 2021
- Opioid Skin Patches: Advisory and presentation for in-services. June 2020.
- Fentanyl Oromucosal Formulations: Advisory (long and short versions) and presentation for inservices. May 2019

Presentation at SHPA Medicines Management Conference 2019: The ripple effects of contrast induced nephropathy – the need to clarify medication-related issues.

b. QUM Issues Survey

Whenever relevant, NSW TAG escalates safety and quality use of medicines to the the Ministry of health or appropriate pillar. In 2019, it was decided to conduct annual surveys of members to identify issues confronting DTCs and clinicians involved in medicines management. The survey included issues that had been previously highlighted to NSW TAG through email discussions, Editorial Committee and medSMART meetings. Participants were asked to rank the issues in terms of importance and provide local proposed or actual interventions to address the identified issues. Issues identified of high importance included:

- Potential for misadventure with high strength insulin formulations
- Potential for misadventure with hydromorphone formulation
- Lack of consensus for perioperative medication recommendations
- Duplication of therapy for DOACs and VTE prophylaxis
- Perioperative risk of SGLT2 inhibitor associated ketoacidosis
- Risks relating to IV fluids including potassium pre-mixed bags and magnesium
- Off label use of medicines
- Inappropriate use or dosing of pregabalin

Other issues were also raised. The survey also asked members to provide information about the reporting of hospital-acquired complications. A letter to DTCs provided a summary of the QUM survey; findings regarding the reporting of Hospital-Acquired Complications (HACs) and associated initiatives; and, information about the 2018-2019 ISMP Targeted Medication Safety Best Practices for Hospitals. Survey results were also provided to the Medication Safety Unit at the CEC.

Since the survey, NSW TAG has worked to address or advocate to others solutions for the issues. Resources such as the Know Your Insulin poster, the SGLT2 inhibitor consumer information leaflet and resources for off label medicines use have been developed and issues related to hydromorphone and potassium pre-mixed bags have been escalated.

The 2020 survey was deferred due to COVID-19 pandemic and the work of the DaTA-CoP. The 2021 survey is planned for release in August 2021.

9. Advice and support to Ministry of Health and pillars

In addition to representation on numerous CEC, ACI and Minsitry of Health Committees, NSW TAG provides an ad hoc advisory service for medicines management and quality use of medicine issues.

a. CEC

NSW TAG has contributed or continues to contribute to a number of the CEC's committees and initiatives. NSW TAG is a long term member of the Medication Safety Expert Advisory Committee, Antimicrobial Stewardship Expert Advisory Committee and the Continuity of Medicines Expert Advisory Group and its Medication Review Subgroup. NSW TAG has also provided nominees to the VTE and Anticoagulant Advisory Groups. Dr Bennett presented to the Older Person's Safety Group,

NSW TAG has assisted with reviews of various Policy Directives including the PD 2016_033 Approval of Medicines for Use in NSW Public Hospitals and PD2020_045_ High Risk Medicines Management and various High Risk Medicines Standards; Guidelines for Post Partum Haemorrhage (GL2021 010); Health Literacy Framework (February 2019)

b. Agency for Clinical Innovation (ACI)

NSW TAG has contributed/continues to contribute to a number of ACI activities:

- Working Group for Hospital Guidance re Use of SGLT2 inhibitors. NSW TAG has developed a consumer-tested consumer information leaflet to accompany this work. It will be published when the ACI document is finalised.
- Frailty Task Force: Dr Bennett is a member of the Task Force. Prof Hilmer (Chair) and Dr Bennett
 have also been members of the Medicines Optimisation in Frailty Working group. Prof Hilmer and
 Dr Bennett have led or provided feedback on various documents being developed by the Task
 Force such as the Guide for Medication Review for Older Frail people, a Resource Repository for
 Medicines Use in Frail People, and Clinical Practice Guideline for Shared Decision Making
 Framework.
- Pain stream: Opioid prescribing in Chronic Non-Cancer Pain

- Cardiology stream: Chronic Cardiovascular Clinical Expert Reference Group; 3Ci Project for Heart
 Failure and COPD; Dr Bennett provides annual medicine in-service talks to NSW cardiology nurses.
- Radiology Stream: Development of documents related to radiological product use.

c. Ministry of Health

In addition to supporting the activities of the NSW COVID-19 Drug and Therapeutics Advisory Community of Practice, NSW TAG has contributed or continues to contribute to a number of Ministry of Health initiatives including the reviewing and providing feedback regarding:

- PD2013_043: Medicines Handling in NSW Hospitals, review of NSW Health Nurse Practitioners PD2020_034, advice regarding PD2005-395Funding Arrangements for Outpatient Use of High Cost Medicines, Statewide Nurse Prescription, Supply and Administration: Protocol for Public Health response March 2019
- Protocol Administration and Supply of Sexually Transmissible Infection Therapies by Registered Nurses Employed in NSW Publicly Funded Sexual Health Services;
- Guidelines for Post Partum Haemorrhage
- Maternity Hypertension Guidelines
- Last Days of Life: Paediatric and Neonatal ToolKit: extensive feedback during March and June 2021.
- Draft Wound Management Standards June 2019
- Neonatal Medication Formulary (NEOMEDS)

Recent contribution to the MoH projects includes:

- Membership of Real Time Prescription Monitoring Peak Bodies Reference Group and
- Memberships of the Statewide Pharmaceutical Procurement and Formulary Projects

Recent NSW TAG correspondence to the Ministry of Health has included:

- NSW TAG has advocated for adoption of a statewide electronic IPU tool for DTC use since 2019.
- Challenges with vaccine delivery and management in NSW public hospitals

10. Submissions and Contributions to other Organisations

During the 2018-2021 period, NSW TAG has made submissions and contributions to:

Australian Commission on Safety and Quality in Health Care (ACSQHC)

- National Opioid Analgesic Stewardship Program Consultation June 2021; Public
- Consultation on Quality use of Medicines and Medication Safety (10th National Health Priority) Phase 1: Aged Care June 2020.
- Endorsement of the Revised Antimicrobial Clinical Care Standard. Dr Bennett was also on the Working Party for the Revised Antimicrobial Clinical Care Standard.
- Consultation: Peripheral Venous Access Clinical Care Standard Clinical Care Standard (Sep 2019)
- Consultation: Australia's national response to the third World Health Organization Global Patient Safety Challenge – Medication without harm July 2019
- Consultation: Pfizer-BioNTech COVID-19 Vaccine Storage, Redistribution and Preparation: A
 Detailed Implementation Resource for Australian Hospital Pharmacies Feb 2021

- Consultation NSQHS Standards User Guide for Medication Management in Cancer Care (May 2019)
- Consultation-National Safety and Quality Health Service Standards user guide for health services providing care for people with mental health issues. (July 2018)
- Cataract Clinical Standard Working Group.
- ACSQHC Recommendations for terminology, abbreviations and symbols used in medicines documentation 2018.

Department of Health

 Review of the Quality use of Medicines Program's Delivery by the National Prescribing Service (NPS MedicineWise) January 2019.

Therapeutic Goods Administration (TGA)

- 2D Data Matrix Codes Workshop, December 2019
- Medication safety issues with fluoroquinolones, Humalog KwikPen 200 U/mL, naming of Ryzodeg; naming of COVID-19 vaccines in TGA communications.
- TGA Consultation on the use of prescription opioids for pain (Feb 2018)

National Paediatric Medicines Formulary

Letter and on-going support 2019-2020

Communications to TGA/ various pharmaceutical companies

Communications during 2018-2021 due to potential for medication errors include the following:

- Listing of components of valsartan, amlodipine, hydrochlorothiaizide on Webster packs versus proprietary packaging
- Look-alike Engerix products
- Look-alike Primaxin and Ivanz
- Look-alike Solavert packaging

Conclusion

NSW TAG, through its highly engaged clinical network supported by a specialised secretariat, has more than fulfilled the requirements of the 2018-2021 contract to support quality use of medicines in NSW Hospitals. Our clinically relevant, trusted, expert advice is especially critical to support the rapid changes required to manage the pandemic; as well as supporting current innovations in NSW Health, such as the statewide formulary committee and building capacity in quality use of medicines through eHealth. We look forward to continuing to support improvement in quality use of medicines in NSW with the renewal of our contract.