TASMANIAN MEDICINES ACCESS & ADVISORY COMMITTEE

A Digital Solution for the Individual Patient Application Process

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Background

Drug and therapeutic committees (DTCs) are multidisciplinary committees that provide governance for the medicines management systems within a hospital, area health service or state. Actions of the DTC aim to ensure the safe, effective and cost-effective use of medicines for both the benefit of patients and the sustainability of the health service. The Council of Australian Therapeutic Advisory Groups (CATAG) *Guiding Principles for the roles and responsibilities of Drug and Therapeutics Committees in Australian public hospitals* provides a framework for how DTCs can be best placed to meet these objectives.

One typical aspect of DTC function is the management of approvals for medicine use, either on a hospital formulary for general use or for an individual patient. DTCs use Individual Patient Applications (IPAs) to consider non-Formulary medicines for individual patients. These are often applications for high cost medicines, and/or for patients with rare conditions or extenuating clinical circumstances where clinical evidence to support treatments may be limited. The Tasmanian Medicines Access and Advisory Committee (TMAAC) is Tasmania's statewide DTC for all public hospitals. Having a single statewide DTC assists in standardisation of processes and consistency in DTC approach to decisions. Effective data management and recall are also essential to support consistency in decision making, and to improve equity in committee decisions. Digital tools to enhance the collection, storage and recall of data provide an opportunity for quality improvement and streamlining of IPA processes for both DTCs and applicants.

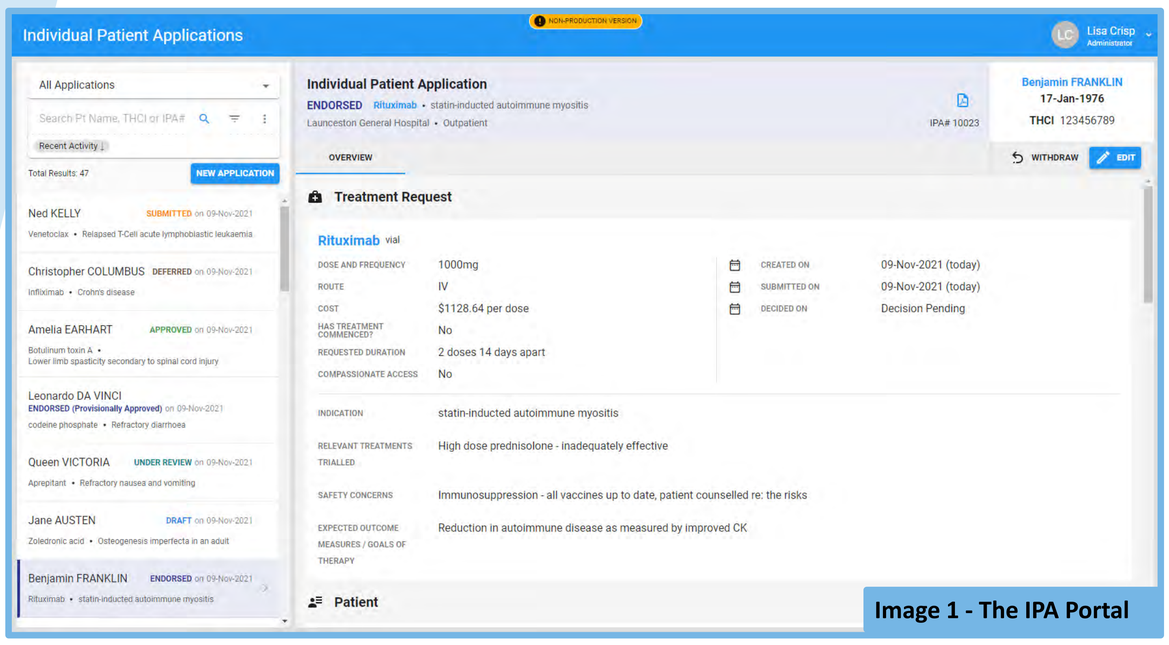


Image 1 - The IPA Portal

Preparation and submission of a comprehensive IPA takes time for prescribers in gathering both relevant patient information and clinical trial evidence to support the application. An improved application and database system allows for easy recall of past applications and associated clinical evidence for individual prescribers, streamlining this application process and enhancing the quality of future applications. For DTCs, reliable recall of committee decisions along with all of the supporting documentation that was used to reach that decision, reduces duplication of effort, provides consistency in approach and ultimately leads to improved decision making. Digital tools can also provide opportunity for improved two way communication between the committee and the applicant.

Description

After almost two decades of a paper based application system the Tasmanian Medicines Access and Advisory Committee (TMAAC) sought a digital solution for the IPA process to;

- align the Formulary and IPA medicines governance systems
- improve record keeping and data recall
- improve application quality and accessibility
- enhance visibility and understanding of the assessment process, and
- provide more rapid responses on application outcomes

The need to move away from paper based records in healthcare settings as a result of COVID-19 then provided greater urgency for a digital solution in this space.

Action

Working with a local software developer, an online portal was built for the submission of IPAs by clinical staff. Behind the user interface (image 1) is a database of applications with functionality to allow for the upload of supporting documentation, data management, and communication of DTC outcomes to clinicians. Upload of records held in an old Microsoft Access Database means that the new database now holds records dating back to 2010 despite the new system only being 2 years old. Advanced searching capabilities allow for the rapid recall and reporting of information held within the database.

A soft roll out occurred in mid-2020 for internal DTC use, followed by prescriber education via Microsoft Teams and roll out to clinicians in early 2021.

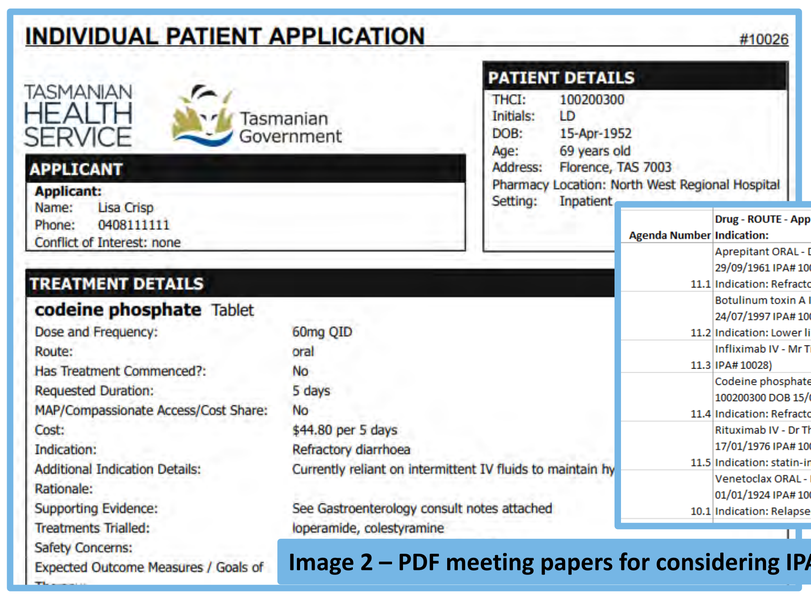


Image 2 – PDF meeting papers for considering IPAs

Agenda Number	Drug - ROUTE - Applicant - Patient initials (Site - THCI - DOB - IPA#) Indication:	Specialty			
	Aprepitant ORAL - Dr Julia Gillard - QV (MCH THCI 111222333 DOB 29/09/1961 IPA# 10025)				
11.1	Indication: Refractory nausea and vomiting	Gastroenterology			
	Botulinum toxin A IM - Dr Bob Hawke - AE (RHH THCI 987654321 DOB 24/07/1997 IPA# 10027)	Rehabilitation Medicine			
11.2	Indication: Lower limb spasticity secondary to spinal cord injury				
	Infliximab IV - Mr Tim Costello - CC (THCI 900800700 DOB 20/05/2006 IPA# 10028)	Gastroenterology			
11.3	Indication: Relapsed T-Cell acute lymphoblastic leukaemia				
	Codeine phosphate ORAL - Prof Penny Wong - LD (NWR THCI 100200300 DOB 15/04/1952 IPA# 10026)	Gastroenterology			
11.4	Indication: Refractory diarrhoea				
	Rituximab IV - Dr Thomas Jefferson - BF (LGH THCI 123456789 DOB 17/01/1976 IPA# 10023)	General Medicine		Two doses approved May 2021	Under Review
11.5	Indication: statin-inducted autoimmune myositis				
	Venetoclax ORAL - Dr George Bush - NK (LGH THCI 400500600 DOB 01/01/1924 IPA# 10029)	Haema			
10.1	Indication: Relapsed T-Cell acute lymphoblastic leukaemia				

Image 3 – Automated agenda outputs

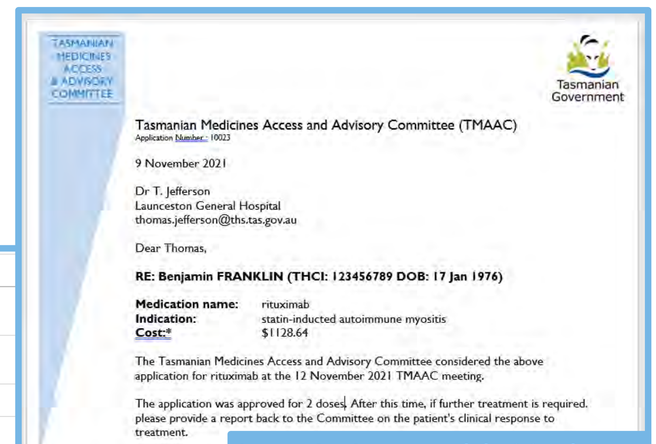


Image 4 – Automated decision letters

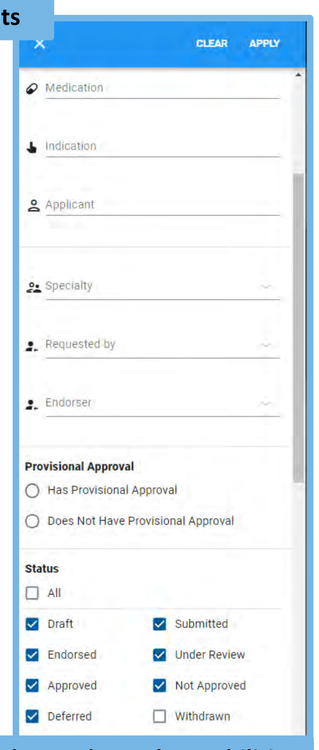
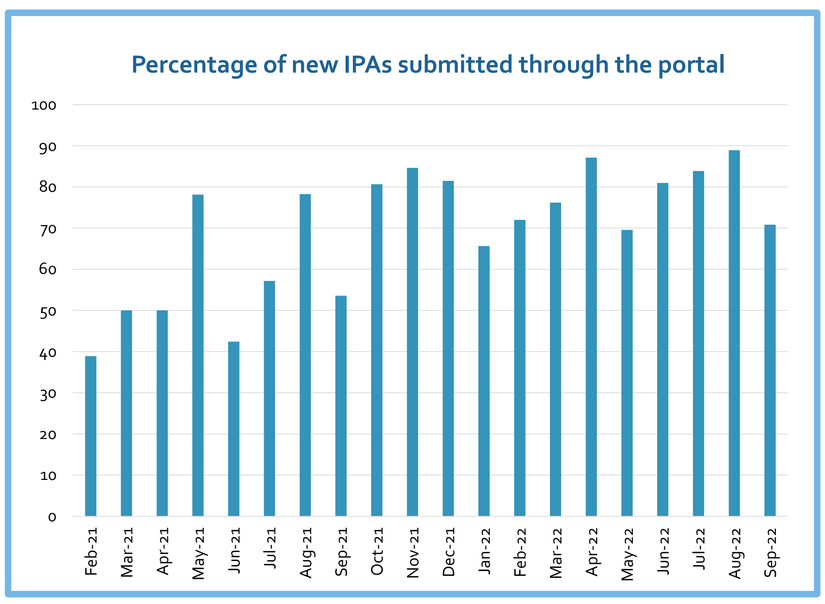


Image 5 – Advanced search capabilities



Evaluation

Uptake by clinicians was used to evaluate the utility of the portal. While the paper based forms remain available indefinitely, uptake of the portal was rapid with applications being received within days of providing clinician education and access to the system. At least 50% of all new IPAs received were submitted through the portal in 9 of the first 11 months of operation, with usage more than 75% of all new IPAs in 5 of those months. These results are impressive and somewhat unexpected due to the minimally resourced implementation. In 2022, the second year of operation, consistently between 66% and 89% of all new IPAs (excluding streamlined forms) were submitted via the IPA portal, showing continued adoption into routine practice.

Due to budget constraints on the project, only a generic IPA form could be incorporated into the electronic portal. For ease of application in specific indications, TMAAC already had several streamlined application forms. These forms require less information than a generic IPA, but may ask targeted questions to ensure that all information is available to the committee to be able to make an informed decision. In most cases, it is more efficient, for both the applicant and the committee, to continue to use these streamlined forms, rather than the online portal, with fewer and/or targeted questions in the streamlined form. To ensure that the database that sits behind the portal contains all necessary records, these streamlined forms and any IPAs submitted on the old generic IPA paper forms are uploaded by administrators in the IPA database/portal. This then allows the other benefits of the portal to be realised for these paper-based applications, such as the automated decision letters and rapid communication of committee decisions.

Implications

While early assistance from DTC staff was required to assist some new users, efficiency gains in the DTC processes have been realised. Predominantly this has been through;

- The ability to rapidly generate a PDF version of the application (image 2) for patient records or for the meeting agenda
- Agenda generation for all "Under review" applications (image 3)
- Automated decision letters generated from database information on our DTC letterhead template (image 4)
- Advanced search functionality to rapidly interrogate the database for information when needed (image 5). Reporting on any aspect of IPA activity is streamlined with the filtering and export capacity.
- Easy to use reporting functionality for enquiries, compliance monitoring and quality improvement projects (image 6)
- Integration with the electronic medicines Formulary drives traffic to the Formulary as well as ensures that drug information electronically "pulled through" to the IPA system is complete and correct, reinforcing appropriate medicine systems governance.

					Patient					
IPA Number	Application Date	Application Status	Urgent Treatment Approval Granted	Is Report Back?	Given Name	Family Name	Initials	Date Of Birth	THCI	Pharmacy Location
10023	09/11/2021 15:41	Approved	No	No	Benjamin	FRANKLIN	BF	17/01/1976	123456789	Launceston General Hospital
10025	09/11/2021 16:08	Endorsed	No	No	Queen	VICTORIA	QV	29/09/1961	111222333	Mersey Community Hospital
10026	09/11/2021 16:13	Not Approved	Yes	No	Leonardo	DA VINCI	LD	15/04/1952	100200300	North West Regional Hospital
10029	09/11/2021 16:32	Submitted	(Ctrl)	No	Ned	KELLY	NK	01/01/1924	400500600	Launceston General Hospital
10028	09/11/2021 16:22	Deferred	No	No	Christopher	COLUMBUS	CC	20/05/2006	900800700	
10027	09/11/2021 16:18	Approved	No	No	Amelia	EARHART	AE	24/07/1997	987654321	Royal Hobart Hospital
10024	09/11/2021 16:02	Draft	No	No	Jane	AUSTE				

Image 6 – Excel output reporting

As well as immediately streamlining processes and communication for both clinicians and the DTC, this innovation will support the recall of quality information into the future for greater consistency in decision making, reporting of trends, and analysis of high cost drug usage across the health service. Behind the electronic portal sits an application database, searchable by drug, indication, date, specialty etc. The features of this database mean that all decision support materials can be uploaded to an IPA record, so that for future similar applications or review of an IPA, all supporting clinical trials, specialist correspondence, etc. are available. Decision letters are also uploaded to the database so that they can be recalled as needed by the applicant, or so that report back requirements can be quickly and easily accessed by the DTC when assessing any application for further therapy. Real time DTC outcome visibility for applicants and pharmacy facilitates improved workflows for the processes of scheduling clinic patients, and ordering or compounding high cost medicines. Visibility by pharmacy staff also supports timely access to medicines and allows for rapid communication of new prescriptions presented for expired approvals, enhancing prescriber compliance with DTC decisions.