

Clinical Knowledge Network – Case study

How a collaborative approach to information resource acquisition has improved paediatric care across Queensland.



A growing need for paediatric resources

Paediatric patients have a range of specialised healthcare needs that can't be managed in the same way as for adults. Children are also disproportionately more likely to be taken to hospital, which is especially so in the case of visits to hospital emergency departments¹.

With a growing population, Queensland has seen an ever-increasing demand for paediatric services across the state. But when it comes to clinical information, paediatrics has often been under-served by the range of dedicated knowledge resources available to clinicians.

Queensland Health's online Clinical Knowledge Network (CKN) provides its 66,000 doctors, nurses, allied health and ambulance clinicians with access to thousands of critical knowledge publications and information resources including leading diagnosis, treatment and medicines dosing tools.

Key priorities for CKN are to provide the most relevant clinical information, while working within its finances, and aiming to deliver a value-for-money solution for Queensland Health.

Since 2014 it has done that by using a specialised information resources company, EBSCO, which has had responsibility for procuring and managing online content.

Additionally, EBSCO manages the CKN helpdesk, which is in daily communication with frontline hospital staff for a range of technical, access and resource enquiries. It became apparent from the helpdesk's discussions with paediatric clinicians that there was a growing state-wide need for additional paediatric resources, particularly for injectable medicines, where the needs of children and young people are very specific.



"Medication dosing and administration in children is very different compared to adults. Having reputable paediatric-specific resources readily available would help clinicians to have the right information at the right time, which ultimately improves patient outcomes."

Bruce Chio, A/Pharmacist Consultant at the Queensland Children's Hospital

Finding the right tool to deliver the best patient outcomes

EBSCO works with dozens of medical publishing organisations, ranging from large multinationals to small society publishers, and has visibility over a wide range of available resources.

Responding to demand from clinicians, an online paediatric medications resource was identified that could cost-effectively be made available to all Queensland Health staff across the state. The Paediatric Injectable Guidelines (PIG), from The Royal Children's Hospital Melbourne (RCH), was identified as an ideal option, and during routine resource management discussions with

Queensland Health a state-wide subscription licence for the PIG was recommended as a way to fill the gap.

Richard Sayers, Manager, Clinical Knowledge Resources, Statistical Services Branch, Queensland Health, said that several factors were considered in CKN's decision to license the PIG state-wide, not least being the provenance of the content.

"The PIG is Australian and highly regarded within this country and overseas for being compiled by practising paediatric pharmacists. The PIG draws

¹AHWP Emergency department care 2016-17 / [Australian hospital statistics](#)

on the extensive experience and knowledge of professionals who actually work on the front line of paediatric pharmacy," Sayers said.

Additionally, CKN considered the PIG's safety features, currency of content, pricing model, and capacity for reliable delivery via mobile devices and online, vital in a geographically large state like Queensland.

"Previously hospitals across Queensland purchased copies of the PIG as a printed book. It was added expense for the hospitals, especially smaller regional hospitals, and the books would sometimes 'disappear' just as they were needed.

"Moving to an online subscription would mean that every Queensland Health clinician would have 24/7 access to the PIG through their work computer and mobile device, and the cost is paid by CKN," Sayers said.

Last year CKN facilitated over:

- 9.1 million searches for medicines
- 1 million searches for diagnosis and treatment information
- 1.1 million articles, supplied for diagnostic and research purposes

A focus on achieving long-term objectives

EBSCO's Contracts Manager, Linda Shaw, explained how EBSCO worked with RCH to build a sustainable licensing model to provide unlimited access to Queensland Health, while securing a solid income stream for further development of the PIG.

"We were excited to see that the PIG was available online. After recommending it to Queensland Health, we started talks with RCH about exploring a state-wide deal for Queensland," Shaw said.

"Facilitating and maintaining mutually beneficial relationships with supplier partners has been one of CKN's success strategies to date, so we wanted to ensure a win-win for both CKN and RCH – not only financially but also in achieving their broader objectives."

For the Royal Children's Hospital Melbourne, the development of the PIG has taken it from a publication developed by the RCH clinical pharmacy team to standardise their administration practice, to an online version that integrates with EMR systems, and now with an online subscription model available to the wider healthcare community.

"The PIG project is set up as self-funding to support and improve the publication. It is a key objective for the project to get the product up on the state health department portals, and provide a standardised guideline for every paediatric bed and emergency department in Australia. To achieve this, we wanted our publication available to all of Queensland Health," said Mark Kimber, RCH Pharmacy Department's Business Development Manager.

Following Queensland Health's decision to explore a deal to make the PIG available to all of its paediatric clinicians, EBSCO managed the negotiations with The Royal Children's Hospital in what would be the largest of its state-wide deals. This however had to occur outside of CKN's normal purchasing cycle so funds had to be found within an already tight budget for information resources.

"Fortunately, astute financial management by our contracted partner, EBSCO, and a good pricing model from RCH meant that CKN could go ahead," Sayers said.

A collaborative approach delivers a win-win

With the contract finalised, RCH worked with EBSCO's resource onboarding team to make the PIG available to clinicians. "Once the negotiation was finalised, the setup process facilitated by CKN and EBSCO was quick and easy. The only technical challenge we faced was in implementing the OpenAthens (authentication) link between the Australian Medicines Handbook Children's Dosing Companion and the PIG. But this was resolved quickly after some technical discussion. Other than that, the technical setup was made very easy by the EBSCO team, who were helpful and supportive. We were up and running and testing in a matter of minutes," Kimber said.

Shaw said that ongoing engagement and promotion were an important part of setting up a new resource and building usage, and an information program to inform users about the availability of the PIG was a

high priority. "Clinicians get value out of a resource when they actually use it, so making sure they know it's available is critical. Apart from prominent positioning on the CKN website, we were able to inform Queensland Health staff about the PIG's launch using all of CKN's communication channels—including newsletters and social media. Interest in the product right from the start exceeded everyone's expectations."

Kimber noted, "Our product looks great in the CKN portal, which has facilitated a steady uptake from the health networks in Queensland. We have also had a great deal of positive feedback. This was the first step and a fantastic opportunity for the RCH to provide ongoing support for Queensland Health with the Paediatric Injectable Guidelines. We see the access provided via the CKN network as a key part of the long-term development of our product."

"The PIG has helped bridge the gap, moving paediatrics away from being therapeutic orphans"

For users, the PIG is another much-needed resource that CKN has acquired on advice from clinicians involved in neonatal medicine and nursing, and paediatric pharmacy.

Chio said, "It's unique compared to other references. It's developed within Australia so the information and medications are more applicable to our local practice and assists us in making clinical decisions that are best suited for our cohort of patients. With the information available in the PIG, clinicians

can make rational decisions for medications to be administered. The PIG has helped bridge the gap, moving paediatrics away from being therapeutic orphans."

Sayers said, "Working with RCH has been a very positive experience. The PIG meets some very specific needs but does so extremely well, and the state-wide licence means that every Queensland Health clinician with need of the product can use it. That's a great result for everyone!"