

Pharmacy Trial Program Tranche 2

# **Integrating Pharmacists within ACCHSs to Improve Chronic Disease Management (IPAC) Project**

***Thematic Analysis of Feedback received by  
the PSA Coordinators***

June

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- James Cook University (JCU) College of Medicine and Dentistry; A/Prof Sophia Couzos, Dr Deb Smith, Dr Erik Biros.
- Steering Committee; Independent Chair Emeritus Professor Colin Chapman, Dr Dawn Casey (NACCHO), Ms Deb Bowden (PSA), A/Prof Sophia Couzos (JCU), Ms Hannah Mann (Pharmacy Guild of Australia), Dr Lindy Swain (Independent pharmacist), Emeritus Professor Lloyd Sansom (Department of Health)

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The financial assistance provided by the Australian Government must not be taken as endorsement of the contents of this report. The trials are undertaken by independent researchers and therefore the views, hypotheses and subsequent findings of the research are not necessarily those of the Australian Government Department of Health.

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## Background

Pharmacists integrated within Aboriginal Community Controlled Health Services (ACCHSs) often work with complex patients who may have multiple chronic diseases and specific socio-cultural priorities and challenges. This necessitates an understanding of both complex chronic disease management and of the social determinants of health and the public health challenges related to Aboriginal and Torres Strait Islander peoples.

The IPAC Project explored if integrating a registered pharmacist as part of the primary health care team within ACCHSs (the intervention) led to improvements in the quality of the care received by Aboriginal and Torres Strait Islander peoples with chronic diseases, when compared with prior (usual) care.<sup>1</sup> As such, pharmacists participating in the Integrating Pharmacists within ACCHSs to improve Chronic Disease Management (IPAC) Project were required to work across diverse settings in a culturally-responsive manner to deliver the required core services and to capture relevant data for evaluation.

All study measures related to '*quality of care*' outcomes (the project objective), and included indices to assess change in the quality of prescribing, the quality of medicines support through indicators of health service utilisation, and ultimately the effect of these improvements on biometric indices as a measure of health outcome; these are reported elsewhere.<sup>2-4</sup> Also fundamental to the relationship between study measures and the project objective was the quality of the patient, service and stakeholder experience related to the impact of integrated pharmacists at their respective ACCHSs.

As the project partner responsible for qualitative analysis, James Cook University (JCU) College of Medicine and Dentistry evaluated perceptions from health service staff and patients on having an IPAC pharmacist integrated within ACCHS. The analysis also explored perceptions regarding the effectiveness of the intervention through an in-depth assessment of implementation in an urban, regional and remote setting.<sup>5</sup>

Throughout the implementation phase of the project, PSA Coordinators received substantial feedback from patients, clinicians and health service staff supporting the value of pharmacists integrated within ACCHS. The participating integrated pharmacists also provided feedback related to the enablers and challenges they experienced during the project, examples of the tools and resources they developed for use in the project, and case studies demonstrating their impact on patients' health outcomes. This report aims to document a series of comments and feedback received by patients, ACCHS staff and pharmacists and synthesises themes related to this feedback.

# Feedback received by PSA Coordinators

## Feedback from patients

Throughout the implementation phase of the project, testimonials from patients attending participating ACCHSs were received by integrated pharmacists and health service representatives, and forwarded to PSA Coordinators. This feedback acknowledged the positive health impact and value to patients of integrated pharmacist services and, importantly, identified that the integrated pharmacists were working in a culturally responsive and safe manner.

In one testimonial, a patient stated:

*"[IPAC pharmacist] said that we are a team. Me, [IPAC pharmacist], the doctor, nurses, everyone involved in helping ensure my diabetes doesn't get out of control- and I am the team leader but we are a TEAM. THAT changed my life. It was the start of a happier, healthier life for me". (Appendix A. Testimonial 1)*

Some consistent themes evident in the testimonials received from patients included the integrated pharmacists' ability to;

- Increase patient engagement with members of the health care team
- Instil a sense of self-empowerment in patients, enabling them to play a more active role in decision-making about their medication management
- Improve patients' understanding of the role of medicines, including reasons for changes made to therapy
- Adjust patients' medication regimens to better suit their lifestyle, making adherence easier
- Streamline medications and offer invaluable advice on dietary requirements
- Provide clinical consistency at sites which are reliant upon locum doctors
- Provide a valuable medicines-related contribution to holistic patient care when working as part of the multidisciplinary team at the ACCHS
- Communicate with patients in a way that made them feel comfortable talking about their health and their circumstances, enabling effective sharing of information

These patient testimonials (de-identified) are included at Appendix A.

## Feedback from clinicians and other ACCHS staff

Testimonials supporting the value of integrated pharmacists within participating ACCHSs were also received by PSA Coordinators from clinicians working within the ACCHSs as well as from external clinicians involved in the care of their patients. This feedback was offered either at the time of site visits by PSA Coordinators or via email throughout the implementation phase.

Clinicians included numerous Medical Officers, a visiting Consultant Physician and an Aboriginal Health Worker, in addition to external pharmacists and a Credentialed Diabetes Educator working in public hospital servicing patients common to the ACCHS. Further testimonials were provided by a practice manager and site manager at participating ACCHSs.

In one testimonial, a Medical Officer stated;

*“I think it would be an absolute dream for each practice to have a clinical pharmacist, especially where there is a high priority of Indigenous patients” (Appendix B. Testimonial 9)*

In another testimonial, a Medical Officer described a notable case in which the integrated pharmacist had a significant impact on patient’s health outcome;

*“A young woman in her 20’s with an intellectual impairment and multiple endocrine disorders (thyroid, parathyroid, calcium metabolism) requiring complex medication dosing with side effects.*

*[IPAC Pharmacist] visited the family several times and made contact with the disability support agency and the pharmacy who supplied her Webster packed medication.*

*She ensured that the medication dosing regimen allowed for potential medication interactions (calcium, thyroxine etc); and worked out that the best way to support the client in taking her medications was to have them administered by the disability support agency who saw the client 3 times a week.*

*She undertook significant communication with the client and her family, the disability support agency and the dispensing pharmacy, to help make this happen.*

*I have just had this patient’s blood results in (after all of [IPAC Pharmacist] hard work), and can report that after having had calcium serum levels which were putting her at risk of cardiac arrhythmias for months, a PTH 10 times above the upper limit of normal, and TSH consistent with symptomatic hypothyroidism, this patient has today returned with a normal suite of blood results for the first time in 12 months. This is just one case where having [IPAC Pharmacist] input from “on the ground/in the home”, and her significant contribution to solving this problem, has resulted in a great outcome for this patient.*

*Pharmacists working with GPs in this fashion can make an amazing difference to patient outcomes. I sincerely hope that funding for this kind of team work will continue.” (Appendix B. Testimonial 15)*

Some consistent themes evident in the testimonials received from clinicians and ACCHS staff indicated that pharmacists integrated within the ACCHS;

- Educate and empower the community with improved understanding and confidence with their medications which in turn improves adherence
- Improve safety for patients around medication management, compliance, and avoidance of medication errors
- Increase GP understanding of the scope of practice of non-dispensing pharmacists
- Utilise their medicines information and research skills to assist GPs with decision making, particularly important in a population group with a high burden of chronic disease with many patients taking multiple medications
- Increasing quality of patient care, improve accuracy of records and reduce GP stress and time pressures

- Actively participate in case conferences, providing advice and suggestions as well as logistical support in providing treatment to patients in the community
- Play an important role in following-up and recalling patients who are at risk or require monitoring or review
- Provide tailored upskilling for staff including Aboriginal Health Workers and other staff on how to use medications
- Liaise between the GP and the community pharmacist / hospital / specialists / allied health, providing information and advice on medication and flagging issues that may not have been considered otherwise in a busy practice with high patient volume and complex patient needs, and high GP turnover
- Improve pathways of communication between GPs and community pharmacies, especially in regard to discharge medications
- Support the development of new tools for reviewing medication lists and checklists to update community pharmacy regarding changes in dose administration aids
- Provide guidance on matters such as medicine-related procedures, imprest management, and revision of emergency trolley contents

The clinician and staff testimonials (de-identified) received by PSA Coordinators are included in Appendix B.

## Feedback from participating integrated pharmacists

Throughout the implementation phase, communication between the integrated pharmacists and PSA Coordinators was achieved by means of an extensive multi-modal program of support, as described in the *IPAC Project Support for Pharmacists Report*<sup>6</sup>

While day to day feedback from participating pharmacists was considered by PSA Coordinators in the routine operation of the project, formal feedback was sought in a workshop setting at the end of the implementation phase to supplement the qualitative evaluation<sup>5</sup> undertaken by James Cook University (JCU) College of Medicine and Dentistry.

The decision was made by PSA Coordinators to bring the pharmacists together in such a workshop environment, in lieu of second site visits, to enable dynamic group discussion and sharing of experiences. All participating integrated pharmacists were invited by the PSA Coordinators to attend the workshop in Darwin. Of the twenty pharmacists currently participating in the project at the end of the implementation phase, eighteen attended the workshop, with two pharmacists unavailable due to personal or annual leave arrangements.

The aim of the workshop was to explore the numerous enablers and challenges experienced by the integrated pharmacists throughout the implementation phase of the project. Pharmacists were also asked to individually identify enablers beyond induction training which assisted with their successful preparation and integration into the ACCHS setting.

These enablers were grouped into themes for further exploration and discussion. Themes were found to be consistent with those identified in the *IPAC Project - Qualitative Evaluation Report*.<sup>5</sup>

PSA Coordinators prepared a detailed report for the Steering Committee following the workshop, which can be found at Appendix C.

## **Templates, tools and resources created by integrated pharmacists**

Throughout the implementation phase, many of the integrated pharmacists developed resources and templates to enhance patient care and medication adherence, as well as tools to assist with processes within their respective ACCHSs.

A number of pharmacists commented that the medication lists generated by the clinical information systems in their respective ACCHSs were not 'user friendly', prompting them to create culturally appropriate medication list templates (Appendices D1 – D3) of varying complexity which could be customised to meet the needs of individual patients.

In assisted-living circumstances where patients' medicines were managed by care staff, some pharmacists developed protocols (Appendix D4) to assist staff with safe handling and administration of medicines.

Some pharmacists recognised the need to create infographic resources to assist with medication use by patients with varying levels of health literacy. One example is shown at Appendix D5.

In addition to using the promotional posters and brochures developed by the project partners specifically for the IPAC Project, some pharmacists worked with health service staff to create their own ACCHS-specific flyer (see example at Appendix D6) to promote their availability and encourage patients to make an appointment for a pharmacist consultation.

In recognition of the challenges associated with contacting patients who may not have a reliable phone service, a number of pharmacists developed a letter template (see example at Appendix D7) inviting patients to come in to the ACCHS to see the pharmacist.

At a number of sites, pharmacists found that although referrals for Home Medicines Reviews (HMRs) were being generated there was no existing process in place to ensure receipt of the HMR reports, follow up and completion of Medication Management Plans by GPs and subsequent claiming for the associated MBS Item 900 payments.

One pharmacist developed a 'sharable spreadsheet' (Appendix D8) to capture all relevant steps involved in the HMR process and liaised with the MBS Officer at the ACCHS to co-create a process to be followed whereby multiple staff could update the spreadsheet according to their role. The pharmacist reported that this process increased the rate of progression from HMR referral to Item 900 claiming at the ACCHS.

At another site the integrated pharmacists liaised with their ACCHS clinical information system support manager to add a template (Appendix D9) into the clinical information system to streamline input by both pharmacists and GPs when creating HMR reports and associated Medication Management Plans (MMP).

## **Case studies and pharmacist reflections**

Throughout the implementation phase, a number of integrated pharmacists provided PSA Coordinators with case studies or reflections on how they felt they contributed to patient health outcomes. These case studies highlight the complexity of health issues experienced by their Aboriginal patients, along with the need for multidisciplinary input to optimise patient health care.

Examples are included at Appendix E.

## Discussion

The feedback received by PSA Coordinators from patients, ACCHS staff and external stakeholders involved in the medicines cycle of care for ACCHS patients was positive, and consistent with findings reported in the project's Qualitative Evaluation Report.<sup>5</sup>

Common themes emerged across the feedback provided to PSA Coordinators throughout the implementation phase, and included the acceptability, cultural safety and effectiveness of the pharmacist intervention.

**Acceptability:** Pharmacists, patients and staff alike reported that the integrated pharmacists became valued members of the primary healthcare team, collaborating with other clinicians to provide medicines-specific input into multidisciplinary patient care.

**Cultural safety:** Feedback indicated that the pharmacists communicated with patients in a culturally safe and respectful way to improve their understanding of the role of medicines, provide support with medication adherence, and empower them to become more involved in decision-making related to management of their chronic conditions.

**Effectiveness:** The perceived effectiveness of the pharmacist intervention was evident from patient, staff and pharmacist testimonials and case studies which told the stories of improved patient health outcomes and a strong desire for continuation of integrated pharmacist services to optimise patient care beyond the end of the project.

The number of non-dispensing pharmacists integrated within ACCHSs remains low, as pharmacists are not currently funded consistently or reliably to work within primary health care settings in the public health sector in Australia. This highlights the need for a broader program enabling uptake of integrated pharmacists into all ACCHSs across Australia to enable patients, staff and stakeholders to recognise the scope of practice of pharmacists and benefit from their input into patient-directed and health service-directed activities.

Throughout the IPAC Project, integrated pharmacists used their unique skills to create templates and culturally appropriate resources to enhance patient care and aid medication adherence, as well as tools to assist with processes within their respective ACCHSs. It is anticipated that with broader program rollout, integrated pharmacists would continue to provide this valuable service to the ACCHSs sector.

## Conclusion

The substantial and consistently positive feedback received by PSA Coordinators from patients, clinicians and health service staff throughout the project indicated that participating integrated pharmacists fulfilled their role in a way that was acceptable, culturally safe and effective for ACCHSs and their communities. Furthermore this feedback indicated a clear desire for continuity of integrated pharmacist services within ACCHSs beyond the conclusion of the project, supporting the validity of broader program rollout to all ACCHS across Australia.

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# Appendices

## Appendix A. IPAC Project Testimonials from Patients

### Testimonial 1:

In 2003 I was diagnosed with type 2 diabetes. I was given a high dose of Metformin however it made me sick. Eventually I just stopped taking it. I also stopped going to the doctor. A few years later I was seeing another doctor. That doctor prescribed something else. That medication didn't seem to do anything for me. I was put on insulin in 2008 when I was pregnant with my third daughter. I started having hypos which didn't seem to worry the doctor I was seeing and that concerned me.

I have had type 2 diabetes for 16 years. Most of that time I have not controlled the diabetes. I have tried. I have seen several doctors, nurses, dieticians and educators. I have been on several different medications. I know ultimately it is up to ME to look after myself; to take my medications, live a healthy lifestyle, see doctors, have checkups. But I am not a doctor, nurse, dietitian or pharmacist. It is not up to ME to scour the internet and research medical journals to find the information that should be provided to me by those who do have their medical degrees. All options should be provided and discussed.

I gave up so many times because I felt judged, not listened to, not given the information I needed. I felt that I am the patient without the medical expertise and I would be told this is what I'll take, when I'll take it and how much I'll take. And if that didn't work then obviously I was doing something wrong.

I gave up. I couldn't do it anymore. I couldn't go through the mental anguish any longer. So I stopped trying.

About November 2018, after more than two years of not seeing a doctor or taking any medication. I started to have problems with my legs and feet. I decided to see a doctor but put it off for a while and at the end of January 2019 I made an appointment to see a doctor at [site].

While I was waiting to see the doctor, a very friendly lady approached me with a big smile. She introduced herself as [IPAC pharmacist] and she told me she was the pharmacist. She explained to me what she does and asked me about my history and what medications I am taking or have taken in the past. She also offered to come in with me to see the doctor so that we could discuss what was available and what we could start off with. I gladly accepted her offer.

Part of our (myself, [IPAC pharmacist] and the doctors) discussions included what tablets/insulin was available, benefits/side effects of each and what they do, what can be taken together and what can't. I have never been given the information the [IPAC pharmacist] gave me that day. And she continues to give me information about different medication that are available to me.

That morning I was involved in the decision of what I would be given. I was asked my opinion. [IPAC pharmacist] said that we are a team.

Me, [IPAC pharmacist], the doctor, nurses, everyone involved in helping ensure my diabetes doesn't get out of control- and I am the team leader but we are a TEAM. THAT changed my life. It was the start of a happier, healthier life for me.

On the 30<sup>th</sup> January 2019 my hbA1c was 12.3%. Six weeks later it was 7.5%, at my three month checkup it was 5.1%.

I have had my eyes checked, my flu shot, 715 health check, seen a podiatrist, dietician and a psychologist, had a pap smear, breast check. I am exercising, am more active, I've lost weight. All because [IPAC pharmacist] cared enough to approach me that first day. All because she cares enough to check on how things are going and make sure I have ALL the information I should have.

I have witnessed firsthand what [IPAC pharmacist] does. I have seen her with other patients. The service and care she provides is just as important and just as valuable as the doctors, nurses, dieticians and anyone else who provides care for diabetics.

I have an awesome team and thanks to [IPAC pharmacist] I feel that I am a part of that team.

### **Testimonial 2:**

To whom it may concern.

Last week after meeting with the Doctor/Pharmacist regarding our medications, my husband and I both agree that the consultation process was excellent.

Later we were told that this was only a one-off project. We believe that this consultation process should be considered as an ongoing service to further enhance our community care plan/

We know that the community will greatly appreciate it.

Thank you

Two Satisfied Elders

### **Testimonial 3:**

To whom this may concern.

My name is [IPAC participant] and am a community member of [ACCHS location]. I have been attending [site] or a long time.

Since having a pharmacist working at [site] I have had someone to explain and talk to about my medications that I haven't been able to do with the chemist shop. I understand what my medications are for and know I can come down at any time and speak to the pharmacist.

When I come to [site] I see different doctors each time and sometimes I think my medicines are changed too much.

Having a pharmacist helps me to understand these changes and I feel that someone is helping to look after my health and medicines.

A pharmacist is important for [ACCHS location] and the older people. We go to the hospital and doctors for our medicines. The pharmacist is important to make sure the medicines are all okay for us to take.

I would like to know that there is a pharmacist at [site] in the future as I have really benefited from seeing her.

Yours sincerely

[IPAC participant]

#### **Testimonial 4:**

To whom this may concern,

I, [IPAC participant] being a community member of [ACCHS location] and a client of [site] since it began [as original site name] consented to the IPAC project in October 2018. Since having a pharmacist on board my medications are now up to date and suit my lifestyle. Before this, I was missing some doses of my medicines. Now that my medicines are sorted, I feel that my health will only improve. Even though this is something simple, before the pharmacist started, no one else looked at how to help with my medicines.

I believe that the pharmacist at [site] helps other patients in the community manage their chronic diseases and how to manage medicines. A pharmacist gives consistency at [site] which uses locum doctors.

Also, [IPAC pharmacist] at [site] has a nice personality and is easy to communicate with. I am comfortable talking to her about my health.

Yours sincerely

[IPAC participant]

#### **Testimonial 5:**

To whomever it may concern

My name is [IPAC participant] of [participant address] and have been attending the [site] in [ACCHS location] since being diagnosed with unusually high blood pressure at their outreach in [ACCHS location].

Since then, after manipulating various tablets and finding the appropriate medication for my medical condition has improved/stabilized dramatically according to the requirements of my living standards.

The staff there are courteous, always with a smile and are very efficient in their duties as are the transporters (I don't drive).

My blood pressure has adjusted to the require comfortability for my living and the physical and mental stress has decreased in accordance with the treatment given to me.

The visiting podiatrist has shown me how to walk so as to relieve the stress in my feet, calves and ankles from which I have suffered pain for a number of years.

The dietician there has taught me how to eat appropriately in accordance with my inactivity (I'm an invalid pensioner). Not only have I lost the paunch belly acquired from a previous life style, but I also sleep better.

On my last appointment the flu injection was administered for the first time ever and the pharmacist convinced me to give up smoking. I am trying hard to do so.

I give commendation fully to this clinics and all the staff permanent and visiting. Thank you all

From [IPAC Participant]

### **Testimonial 6:**

Dear Sirs,

My wife and I are members of the [location] Aboriginal Cooperative and attend the [site] there.

We first met [IPAC pharmacist] when she started working at [site] one day a week as a pharmacist late in 2018. In the short space of time [IPAC pharmacist] was working with us, she was able to streamline my wife's medications and offer invaluable advice on dietary requirements. As a result of this my wife who is diabetic has been able to halve her doses of insulin, her blood sugar readings have stabilized and we both have lost over a stone in weight with hopefully more weight loss to come thanks to her knowledge and amazing ability to pass this information on in a friendly, easy manner and atmosphere.

It is a pity that more people at the centre did not avail themselves of the opportunity to work with [IPAC pharmacist], it would certainly have been to their benefit.

We wish her well and will miss her and her ability to pass on her knowledge to aid our better living and health efforts.

Yours sincerely

[IPAC participants]

## **Appendix B. IPAC Project Testimonials from Clinicians and ACCHS Staff**

### **Testimonial 7:**

Letter of commendation:

I am writing this letter in gratitude and acknowledgement of our clinical pharmacist [IPAC pharmacist] whom I have known since starting my rotation in [site] in January this year.

Upon starting, it sounded alright to have such a person on the team but I wasn't particularly blown away; after all most of us doctors probably more encounter them because of errors, not signing scripts, unavailability of stock and other such inconveniences. While working here though, I have been completely blown away by her knowledge and work and dedication.

She is easily able to recollect and sift out previous barriers of patients' treatment and other issues, for example, one day I had a patient who presented for wound dressing and I was shocked by his deranged blood sugar levels. Contrary to what patient reported, [IPAC pharmacist] was able to tell me that he had actually lied about HITH staff planning to give him his regular insulin later in the day because

- 1- She personally knew that they organize their visits much earlier in the day and
- 2- She was aware of patients previous history of non-compliance and previous malingering as to not make a fuss of situations

[IPAC pharmacist] displays the heart of a teacher and is genuine advocate for better health practices.

She demonstrates insight in being able to pinpoint common neglects or deficiencies even before they have begun.

I believe strongly that her presence for the clinic is a great asset.

[General Practitioner]

### **Testimonial 8:**

Hi (PSA Coordinator),

I just wanted to drop you an email to let you know that [IPAC Pharmacist] was incredibly helpful today in assisting with a deceased patient. She was able to research the literature to help me discuss a case with the Coroner's office which ultimately was instrumental in deciding to report the death to the Coroner.

Kind regards,

[General Practitioner]

### **Testimonial 9:**

Hi (PSA Coordinator),

I hope this email finds you well.

My name is [General Practitioner] and I am a new GP to Australia (from NZ) and to [site]. I've been working with [IPAC pharmacist] and have been amazed by her rapport with our patients who are mostly Aboriginal. [IPAC pharmacist] is a real asset to our general practice and as an expert Advanced Clinical Pharmacist I have found her to be a very competent and a brilliant addition to the general practice team. Her expertise is used daily and I have learned much from her even though I've only been at the practice for such a short time. She conducts morning training sessions varying from anti-spasmodics to insulin. Her sessions are very enlightening. What's more notable is that [IPAC pharmacist] patients respect her and have made marked improvements in their diabetes and hypertension as a direct result of her work.

I have worked in New Zealand with a clinical pharmacist at a practice in Wellington whose knowledge was invaluable. I think it would be an absolute dream for each practice to have a clinical pharmacist, especially where there is a high priority of Indigenous patients. Please feel free to use what I've emailed you in any way that would increase services like [IPAC pharmacist] in other practices.

Kind regards

[General Practitioner]

### **Testimonial 10:**

Hi (PSA Coordinator),

I would just like to place feedback on what a positive difference having [IPAC pharmacist] working here in the clinic.

As a locum, I feel this service has improved safety for patients around medication management, compliance, and avoidance of medication errors. I feel quite supported, in my clinical work, with this team holistic approach.

[IPAC pharmacist] is an awesome resource with tricky pharmacological queries, and medication interaction, particularly in an AMS service with so much chronic disease, where patients are on multiple medications, with much potential for interactions.

In addition, [IPAC pharmacist] has been able to spend time with the patients fully explaining their medication, and reasons for this, and this improves compliance, and clients do seem more interested in the reasons they are taking medications. It saves the doctor so much time too.

I really hope this service will continue in the future, and I will really miss having [IPAC pharmacist] here at my next locum job!

Kind Regards, [General Practitioner]

## **Testimonial 11:**

Hi [site manager]

I meant to e-mail after my last locum in [site], but have only got round to it now.

I firstly wanted to thank you for the opportunity of working at [site] - I always enjoyed my time in [site].

I don't have any further locums booked in with you, but will liaise with the (site) team once I know what my plans are for 2020.

I just wanted to flag my deep concern at the possibility of not having an onsite pharmacist in the future.

When I started at [site] there was no pharmacist, and I can attest to the huge positive impact having a pharmacist made to increasing the quality of patient care, improved accuracy of records, reduced GP stress and time pressures.

I would seriously consider not returning to [site] if there is no on-site pharmacist, in the same way that I would hesitate to work there without a practice nurse.

The patients at [site] are complex from a medical point of view, and the system you're working in is extremely complex, with the poor communication between hospital and other services. In the same way that the nurses play a vital role in co-ordinating care, the pharmacist plays a vital role in managing medication between all the players in the system to ensure patient safety and optimum outcomes.

The care co-ordination aspect of the GP job would not be possible without the nurses and health workers AND pharmacist.

I re-iterate:

The benefit of working with an in-practice pharmacist have been significant and far reaching.

The clinical pharmacist contributes in numerous ways, for example, by resolving medication issues, liaising between the GP and the community pharmacist / hospital / specialists / allied health, providing information and advice on medication, and flagging issues that may not have been considered otherwise in a busy practice with high patient volume and complex patient needs, and high GP turnover.

Having an on-site pharmacist is, without a doubt time saving for the GP and results in improved patient safety and satisfaction.

As a GP, I felt supported and more able to focus on the clinical reasoning and decision making that is required, knowing that the whole team, including the pharmacist, support and assist in facilitating the implementation of proposed management plans for patients.

The in-practice pharmacist actively participates in case conferences, providing advice and suggestions, as well as logistical support in providing treatment to patients in the community, playing an important role in following-up and recalling patients who are at risk or require monitoring or review. The pharmacist assists in providing continuity of care and clinical handover, resulting in improved patient safety. I feel that this is essential, especially considering the number of doctors who are managing your patients.

The pharmacist is an important part of the clinical team, and has come to play a vital role in the local practice. Not having an in-practice pharmacist at [site] will negatively affect patient care.

I understand that funding may be playing a part, and will gladly advocate for additional funding in any forum.

Please let me know how I can assist to retain a vital member of the clinical team at [site].

Yours sincerely,

[General Practitioner]

### **Testimonial 12:**

To Whom It May Concern,

[IPAC pharmacist] has been an integral part of our Aboriginal Medical Service at [site], commencing approximately 12 months ago as part of the IPAC Project.

Since her arrival to [site] she has worked diligently and tirelessly to integrate her knowledge & skill set into the day to day running of our clinics. Requiring her flexibility in providing support to clinics based in [local regions]. (IPAC pharmacist) has been an important part of our clinical team. She has made herself available & approachable to all our staff. A real professional with a passion for her work & caring for the community. Working to continually improve her own understanding of our unique environment & ever mindful of the cultural appropriateness of her approach towards Aboriginal & Torres Strait Islander patients.

[IPAC pharmacist] has provided a great insight & expertise in regards to any pharmacy related issues within the clinic. At several levels [IPAC pharmacist] advice has been a contributor to improving our level of care, from advice around updating & maintenance of our Emergency Trolley & required drugs at clinic level, to non HMR reviews, support & education of both staff & patients. To advocating for our patients with our clinic, & external providers like hospitals, nursing homes & community pharmacies.

In the short time [IPAC pharmacist] has been a part of the [site] team she has also supported in the development of new tools for updating Medication lists and check lists to update Webster packs for the community pharmacy. Always such willingness to help, educate & empower the community & staff with improved understanding and confidence with their medications. Personally, (IPAC pharmacist) has provided such high quality reviews, that improvements are always identified in her detailed clinic medication reviews. Really striving for a high level of excellence in all the work she has produced in her time at [site].

[IPAC pharmacist] is a beautiful intelligent soul, with a real talent & willingness to connect & engage with people at all levels. I've yet to source any negative feedback from even the most complex & difficult of patients in our community. Often, patients have declined a home visit review in preference to attend the clinic to discuss with [IPAC pharmacist]. This is a mark of the community's respect & confidence in both her knowledge, competence & kindness.

A team player, dedicated to improved health for all people. She strives for innovation in how to optimize her skills within our GP setting, with a positive attitude towards any issues.

Please feel free to contact me should you like to discuss or expand on my recommendation.  
Best Wishes,

[General Practitioner]

### **Testimonial 13:**

Hi (PSA Coordinator),

We have been very fortunate to have had Pharmacists [IPAC Pharmacists] conducting the IPAC trial at [site]. Aside from the trial itself, the presence of two Pharmacists at our practice has had enormous benefits for both GPs and clients.

They became very involved in day-to-day medication issues for all clients, irrespective of the trial.

[IPAC Pharmacists] were available at most times in the clinic to give advice to GPs and Clients on medications, interactions, etc.

If not in the clinic, then one or other was always available by phone.

They were of considerable help in developing better coordination between Hospital and Community pharmacies, clients and GPs.

Hospital and Community pharmacists would often contact them in the first instance rather than the GPs and would include them in email and other correspondence with the GP.

There are now improved pathways of communication between GPs and the Pharmacies, especially in regard to discharge medications.

Their presence encouraged GPs to increase the number of requests for Home Medication Reviews and resulting Medication Management Plans.

Client follow up for HMRs was diligent and communication with GPs was prompt with constant reminders.

By constantly keeping an eye on the clinic's electronic waiting list, they were good at catching up with clients who were in the clinic for other services.

Their education to clients in primary health care was exceptional.

With the completion of the IPAC trial, the services and help that [IPAC Pharmacists] offered will be sorely missed.

I am aware of the possibility of [site] being able to fund a small portion of Pharmacist FTE to allow an ongoing Pharmacist service.

This will be greatly appreciated.

I cannot emphasise enough the benefit of an on-site pharmacy service has made to [site] and to my mode of practice.

Yours sincerely

[General Practitioner]

### **Testimonial 14:**

Hi (PSA Coordinator),

Our pharmacists have done so many things for us I will try to group them into separate sections.

Staff medications support

[IPAC Pharmacist] has completely re written our use of medicines procedure, a mammoth task that I, and senior nurse, and [IPAC Pharmacist] undertook -and [IPAC Pharmacist] did the lion's share of it. [IPAC Pharmacist] attended 2 sessions with our doctors reshaping our medicines list and after agreement and discussion has also provided us with a pdf of all of the medicines available in the clinics colour coded as to where to find them (doctors bag, emergency trolley, imprest, QH STI medicines replacement program) which I use on a weekly basis and we will use as the basis for individual clinic imprest lists. She has developed and shared eye drop charts for patients with pictures of the medicines – if your sight is poor you can't follow written instructions!! Also diabetic insulin regimens for people who might otherwise be unsafe with a sliding scale- but now have an easy to follow visual chart.

She has flagged with us some issues about our ordering system saving us from medication shortages and over-ordering. She has provided tailored upskilling on how to use medications which were very well attended.

[IPAC Pharmacist] has provided staff with upskilling by asking health workers what they wanted to know about. This simple effective check meant that her sessions have been very well attended with lots of vigorous discussion! She also signed the health service up for GoShare and provided info sessions in its use. Both pharmacists have worked on the multistep process of HMR referral, pharmacist report and medical response so it is streamlined and electronic, easy to find in our medical record, and (IPAC pharmacist) worked with our Communicare officers to make them clinical record templates. We have now shared these templates with other AMSs.

Community support

[IPAC Pharmacist] has gone on local radio to talk up what pharmacists can do to help people. [IPAC Pharmacist] is known as “the Medicine Woman” in the [local area] patient diabetes self-care group and is the preferred health staff speaker for them.

Both have gone above and beyond in their efforts to make HMRS a positive experience for patients and [IPAC Pharmacist] recently shared with me a 12 month review of someone's HMR where it was very obvious that progress had been made in understanding and adherence in the interim 12 months. We have several board members who have had HMRs done who are very enthusiastic supporters of the pharmacists as a result.

Patient story

[IPAC Pharmacist] saw a pregnant woman who was a very infrequent attender to all types of health services, who had been started on insulin and who was clearly not coping with what she was supposed to do despite being seen at the [local area] diabetes Centre and being given lots of instructions by specialists and diabetes educators. [IPAC Pharmacist] visited her at home for me several times and picked up and dealt with a typo (a very important accidental added zero on the end of a dose!!) on one of my scripts, thus saving the patient, myself and the service from a potentially very bad outcome and adverse event.

Cheers, [Practice Manager]

### **Testimonial 15:**

Dear (PSA Coordinator),

I would like to provide feedback about the IPAC trial, and in particular about working with pharmacist [IPAC Pharmacist] at the (suburb) clinic of [site].

[IPAC Pharmacist] has been so helpful, friendly and continuously gone out of her way to assist with some of my more difficult to manage chronic disease patients. The feedback from patients, who are often reluctant to have "strangers" visit them at home, has been that [IPAC Pharmacist] has been great to work with, culturally appropriate, and a welcome visitor. When [IPAC Pharmacist] does a HMR for me, she not only provides medication review/advice, but also the often-missing information about clients' social and emotional wellbeing which so significantly affects their ability to adhere to medication regimes. With her assistance we have improved many patients' diabetic control, blood pressure management and worked up other medical conditions (like constipation, or gynaecological disorders) which patients have revealed to [IPAC Pharmacist] during her review, and she has passed on to me.

One case in particular:

A young woman in her 20's with an intellectual impairment and multiple endocrine disorders (thyroid, parathyroid, calcium metabolism) requiring complex medication dosing with side effects.

[IPAC Pharmacist] visited the family several times and made contact with the disability support agency and the pharmacy who supplied her Webster packed medication.

She ensured that the medication dosing regimen allowed for potential medication interactions (calcium, thyroxine etc); and worked out that the best way to support the client in taking her medications was to have them administered by the disability support agency who saw the client 3 times a week. She undertook significant communication with the client and her family, the disability support agency and the dispensing pharmacy, to help make this happen.

I have just had this patient's blood results in (after all of [IPAC Pharmacist] hard work), and can report that after having had calcium serum levels which were putting her at risk of cardiac arrhythmias for months, a PTH 10 times above the upper limit of normal, and TSH consistent with symptomatic hypothyroidism, this patient has today returned with a normal suite of blood results for the first time in 12 months. This is just one case where having [IPAC Pharmacist] input from "on the ground/in the home", and her significant contribution to solving this problem, has resulted in a great outcome for this patient.

Pharmacists working with GPs in this fashion can make an amazing difference to patient outcomes. I sincerely hope that funding for this kind of team work will continue.

Kind regards,

[General Practitioner]

### **Testimonial 16:**

Hi (PSA Coordinator)

I have been informed that the IPAC trial at [site] is drawing to a close.

I would like to offer my support for the project. It has been invaluable to have a team of pharmacists available to handover clinical information regarding cardiac patients here in [local area].

We have a very high number of patients who are from remote areas outside of [local area] and many of them require a period of outpatient treatment/follow-up prior to being fit for transfer back to their home community. They do not have a local GP and many of them go to [site] as a default option because it is equipped to provide culturally safe healthcare. The ability to handover information to [IPAC Pharmacists] has been wonderful as I feel much more confident that information regarding these patients will be appropriately followed up.

I hope that this model of care is continued and expanded to other areas and patient groups. Although My Health Record is assisting with transfer of information between acute and primary healthcare it is invaluable to have a team of motivated and professional pharmacists able to ensure that a patient's medication information and suggestions for ongoing review and adjustment are appropriately reviewed and actioned. Although we would like to 'fully optimise' medications prior to discharge this is often not possible and in many cases is not appropriate, so we rely on our primary healthcare colleagues to optimise the quality use of medications for our patients.

Please do not hesitate to contact me if you would like any further information.

Regards, [External Hospital Pharmacist]

### **Testimonial 17:**

Hi (PSA Coordinator),

I wanted to provide some feedback on the IPAC trial conducted at (ACCHS) with regards to (IPAC pharmacists):

Over the last 12 months (IPAC pharmacists) have greatly improved the coordination of care for patients who are being managed in both a specialist and primary care setting. A large proportion of patients in the (town) Hospital Renal Unit (Dialysis and Renal Clinics) identify as being of Aboriginal or Torres Strait Islander background (approx. 75%). There are many barriers affecting the provision of medications to this patient group including financial (access to Closing the Gap prescriptions, pharmacies that do not charge a Webster packing fee), access to transport, access to dose administration aids to facilitate compliance, poor health literacy and social support. Many of these barriers ultimately affect medication adherence which in turn leads to poorer outcomes and higher rates of hospitalisation for this patient group. Furthermore, changes that are made to medications in the specialist setting are not always communicated in a timely fashion (or at all) to GPs or the primary care provider.

As a pharmacist based in the outpatient setting working in the renal unit I have worked closely with (IPAC pharmacists) to improve the communication between the renal unit and the (ACCCHS). They have assisted greatly in providing a service and access to medications for patients who have had to relocate from a remote area to commence haemodialysis and are completely lost in an urban environment. They have assisted with ensuring patients who have been discharged from (town) Hospital have their medications updated and that patients have access to closing the gap prescriptions so they are not financially impacted (hospital prescriptions and prescriptions from the public renal specialist clinics cannot be processed as CTG scripts which makes it extremely difficult to get medications changed in community pharmacies without the extra step of patients seeing their GP to rewrite the same prescription or having to pay for the medication). They have helped a dialysis patient who had a large pharmacy bill due to Webster packing fees get access to QUMAX funding to waive the Webster fee which in turn led to improved compliance and improved control of her blood pressure, reducing the number of hospitalisations due to hypertensive crisis. The improved compliance with this patient has also meant she is now on the transplant waiting list.

(IPAC pharmacists) have assisted me greatly in identifying barriers to medication adherence through their home visits and better understanding of the patient's social circumstances. We have worked together to improve a patient's compliance post-parathyroidectomy to ensure she was able to collect her updated Webster packs each week following her weekly calcium monitoring by coordinating a day in the week that best suits the patient.

Prior to the IPAC trial there was always a level of uncertainty from my end as to whether the information communicated to the patient and GP would be acted upon and concern of the many barriers (particularly the CTG prescription barrier) limiting access to medications. In many instances patients would run out of medications or did not make appointments to see their GP and as a result the hospital would supply emergency medications to try and get them through.

This was not ideal due to the burden on hospital resources and also the financial impact on the patient (some patients receiving invoices of greater than \$100 due to inability to process hospital scripts as CTG).

When (IPAC pharmacists) started their service I found them to be reliable, efficient and always willing to assist. The communication between our services improved and ultimately has led to better outcomes for an extremely complex patient group.

I sincerely hope that their role can continue and that similar models are rolled out to other health services that have a large indigenous patient group.

If you wish for any further information, please don't hesitate to contact me.

Kind regards,

(Renal Dialysis Pharmacist)

**Testimonial 18:**

Hi (PSA Coordinator),

I am the Visiting Consultant Physician at (ACCHS).

This to report back that the IPAC trial has been a resounding success.

With pharmacists on-site, available and community-involved this way, there has been an impressive positive effect on (ACCHS)'s ability to deliver high-quality health services.

Their impact is manifest right across the organisation.

My only hope, for the sake of our patients, is that this can be continued.

Best wishes

(Visiting Consultant Physician)

**Testimonial 19:**

Hi (PSA Coordinator),

Just letting you know that I am sorry the trial is coming to an end. I have found that my clients are finding it easier with their medications after seeing both (IPAC pharmacist) and (IPAC pharmacist). At first my client's didn't want to talk to them but I told them that both (IPAC pharmacist) and (IPAC pharmacist) were qualified and would be able to tell them all about their medications.

Clients would then tell me they have a better understanding of what they are taking, if there medications were changed and if it was making a difference. Some were happy to report to me the amount of medications they were taking was less and that they were happy about it.

This service is an integral part of client's health journey. (ACCHS has a high number of indigenous clients that benefits form this type of service.

I am positive the trial was successful because I see the client's that have taken part in the trial.

Follow up to the trial; do we get funding to employ pharmacists to our staff and Medicare taking responsibility to adding pharmacists to the EPC referral Medicare billing.

Cheers (Generalist Health Worker)

### **Testimonial 20:**

Hi (PSA Coordinator),

Just some feedback about your trial.

I thought it was great for the clients. Home visits and clear explanations of each medications where useful.

I had a few clients involved, (patient 1), (patient 2) and (patient 3).

I feel medications overwhelm most of my clients, they are on far too many and they find it very confusing.

Any input to clarify medications should be completed after any medication changes.

Keep up the good work

(System Navigator NN RN RM CDE, hospital health service)

### **Testimonial 21:**

Good afternoon,

I am providing input on the IPAC trial at our [site].

It is so sad to see that the trial is ending at the end of October.

Having [IPAC Pharmacist] working from our clinic at [site] with our clinical team has been a very rewarding experience for our clients.

Our clients have provided great feedback, which I document below, and they now call [IPAC Pharmacist] the "Medicine Doctor".

(1) [Site] Diabetes Yarning Group :

[IPAC Pharmacist] has provided information to the group every month when we meet, which is easily understood. She explains what the medication does and how is effects our health. Without her clearly explaining to us all how medicines work, we would of still left our medications under the bed as we did not fully understand how they work.

Now we ring [IPAC Pharmacist] every time we have a question on medicines – she has been very helpful and we are now confident and understand the importance of taking our medications daily.

[IPAC Pharmacist] also comes to my house to check when I am unsure on my webster pack. I welcome her every time to my house as she teaches me many things on my medicines.

We should have the "Medicine Doctor" at all community gatherings when we talk about diabetes and any other chronic disease problem as it helps us to understand how it works in our body and gives us confidence to self-manage our health better.

(2) Clinical Team and participation at weekly clinical meetings:

[IPAC Pharmacist] has been a valuable member of our clinic team, she shares her knowledge well and explains to others on medications work.

[IPAC Pharmacist] has been a keen participant of our weekly clinical team meetings giving us updates on the IPAC trial and medications.

We have made so much progress in this area with our clients, we can see the improvement in clients' compliance with their medications, our clients are more confident. They feel at ease with [IPAC Pharmacist], they have built a very solid relationship, trust and respect.

The IPAC trial has given our clients and staff tremendous confidence on medication management.

Regards,

[Site Manager]

# Appendix C. IPAC Project Workshop Report – Darwin November 2019

## IPAC PROJECT WORKSHOP – DARWIN 5<sup>TH</sup> NOVEMBER 2019

Facilitated and reported on by PSA IPAC Project Coordinators

### Summary

#### Aim

To explore the numerous enablers & challenges experienced by the IPAC Project pharmacists throughout the intervention phase of the project. This decision was made to bring the pharmacists together in a workshop environment in lieu of second site visits by PSA's IPAC Project Coordinators at the end of the project, to enable stimulation of group discussion and sharing of experiences.

#### Outcomes:

**ENABLERS:** Pharmacists were asked to individually identify enablers to the establishment & successful implementation of their role at their respective Aboriginal Community Controlled Health Services (ACCHSs); they were then tasked with grouping these into themes for further exploration & discussion.

Broadly, these themes included:

- Availability of local cultural induction
- Support from clinic leaders at the ACCHS
- Inclusion in all-staff meetings at the ACCHS
- Provision of a ACCHS shirt/uniform
- Availability of a cultural escort
- Attendance at patient group meetings & community events
- Frequent contact with community pharmacy & external stakeholders
- Pre-existing local knowledge
- Good understanding of local services
- Proximity of pharmacist consulting room to GP consulting room
- IT support with clinical software at the local ACCHS level
- Integrated pharmacist model
- Positive 'project culture' created by PSA, JCU & NACCHO Operational Team
- Consistent availability of peer/collegiate support
- Option of an Aboriginal Health Service pharmacist mentor
- Personal attributes

**CHALLENGES:** Pharmacists were asked to identify specific barriers which impeded or delayed their ability to effectively conduct their IPAC Project role; they were then asked to group these into themes for further discussion. Broadly, these themes included:

- Lack of a local project champion at some sites
- 'Newness' of the integrated pharmacist role
- ACCHS preferences regarding how patients are directed to the pharmacist
- Pressure to seek patient consent & commence capture data early in the project
- Activity requested by the ACCHS which didn't 'fit' a core IPAC role
- Limited availability of a consulting room
- Pharmacist consulting room location far away from GPs
- Low FTE role in some project sites

- IT challenges
- Clinic closures
- Language barrier in remote locations
- Change in governance structure & management
- Stability of GP workforce
- Clinic staff turnover
- Project duration
- Access to remote sites
- Data capture

**Conclusion:**

The IPAC Project workshop was very well attended with project pharmacists, the Pharmacy Guild of Australia's Steering Committee representative and all members of the Operational Team united in the same room. This created an exceptionally positive atmosphere for collaborative team discussion and facilitated the sharing of experiences by pharmacists who had otherwise conducted their project activity in isolation from each other. A strong sense of teamwork and support between the pharmacists was noted throughout the day.

During the workshop attendees discussed, identified and explored the key themes associated with the successes and challenges they experienced while delivering the project at their respective ACCHSs. This built upon the observations made by the Operational Team during earlier site visits and communication with pharmacists, and will ultimately serve to further inform and enhance the project's final report.

## Comprehensive Notes from Workshop:

### Welcome & Introduction

Pharmacists were asked to introduce themselves & to share a brief example of a clinical situation during the IPAC Project in which they felt they made had a positive impact upon a patient's health & wellbeing. Such examples included:

- An elder opening up for the first time about his history of mental health problems & wanting to know more about the role of his medicines in keeping him 'well'
- A patient with uncontrolled diabetes, HbA1c of 12%, suboptimal adherence to insulin regimen as she disliked administering daily injections, talked with the pharmacist who recommended to GP to consider switch to weekly exenatide injection, patient happy with this, progressively lost weight & became more mobile, HbA1c reduced to 8%, Endocrinologist very happy with progress!
- 40yo patient in outreach clinic, ongoing heavy alcohol & IV drug use, prescribed multiple opioids, benzodiazepines and sodium valproate for last seizure 10 years ago, patient stated no-one had ever explained medicines before, engaged well with pharmacist who recommended slow weaning of medicines, patient less sedated over time and became an active participant in his own healthcare and decision-making
- After conducting several education sessions Aboriginal Health Workers on the topic of diabetes, the pharmacist then overheard the AHWs passing on this information to patients and staff alike!
- Pharmacist asked by health service to participate in Diabetes Yarning Group to answer any questions from members, attended several sessions then a participant from the group presented to the clinic to see the pharmacist, grinning, asking for glucometer to be checked as it was now reading 6 for the first time ever
- Patient with history of parathyroidectomy, poor adherence to medicines but no one had ever asked why, pharmacist did a home visit and asked the patient about barriers to adherence, discovered that the carer was only able to collect Webster packs several days after (frequent) medication changes leaving days without access to correct medicines. New home delivery process negotiated by the pharmacist with the community pharmacy preparing the packs, adherence vastly improved, TFTs and parathyroid markers now within reference range for the first time since parathyroidectomy, GP very happy!
- Patient in her 50's, disconnected with healthcare system following her husband's death mid-flight, poorly controlled diabetes, lots of 'Did Not Attend' episodes recorded at clinic, reluctantly agreed to see the pharmacist who explained all medicines and recommended Trulicity, several follow-up episodes arranged with pharmacist, patient gradually lost weight and developed trust in clinicians
- Patient living in remote clinic, spoke local language with very little English, history of diabetes with poor medication adherence (metformin, gliclazide and more) resulting in clinic stopping supply of her sachet packs, seen by pharmacist who asked how the patient felt after taking medicines, patient stated diarrhoea + dizzy/'wiped out'. Pharmacist recommended slow recommencement of low-dose medicines, tolerated well by patient, medicines adherence & diabetes control greatly improved
- Pharmacist worked closely with Aboriginal Health Worker and patient to explain dose titration of heart failure medication to a patient, AHW able to then explain role of medicines to patient in a way the patient understood, patient was ultimately able to identify all current medicines and on one occasion contacted community pharmacy after discovering up a Webster pack error which could be quickly rectified
- Patient with complex medical history and many ADRs documented differently across healthcare settings hence patient suspicious of all medications, stopped bisoprolol of his own accord as a result of confusion with ADR from similar sounding drug. Over a few follow up visits the pharmacist was able to collate all ADR lists from various sources into a single list & explain this to the patient, trust & rapport developed over time, adherence noticeably improved

- Patient waiting to see the pharmacist but left upon realising there was also an intern in the consulting room. Pharmacist took the time to visit the patient at home, which enabled engagement and resulted in a long consultation & good outcomes
- Male patient recently released from jail, cyclical pattern of good medication adherence in jail followed by poor adherence upon release & subsequent decline in health. Pharmacist was able to work alongside Aboriginal Health Worker to engage patient in his medication regime when back in community, resulting in increased attendance at clinic & better health, hopefully breaking the cycle
- Pharmacist visited patient in community for HMR, found patient to be significantly unwell so escorted her back to clinic for GP attendance and case conference, medication regimen adjusted with pharmacist input. Pharmacist conducted follow up visit 3 months later & found patient to be feeling much better & now a strong advocate encouraging other community members to see the pharmacist!
- Pharmacist reported improved communication with all GPs in the local area & increased uptake of clinical recommendations as a result of many discussions occurring while integrated at the Aboriginal Community Controlled Health Service
- Elderly patient seen by pharmacist together with an Aboriginal Health Worker for HMR, patient's demeanor was 'closed off' & suspicious. The pharmacist then spoke with the patient a number of times while attending Stolen Generation gatherings, after which the patient was willing to come to the clinic to see the pharmacist for follow up on a number of occasions. The patient became more involved in her own healthcare and at future gatherings announced that everyone else should see the pharmacist too!
- Pharmacist attending Women's Group meetings reported development of trust over time, with a number of community members subsequently approaching her to ask for information about their medicines or to explain changes to their Webster packs
- Pharmacist reported that by working collaboratively with the local community pharmacy they developed a system of identifying patients who had NOT collected their Webster packs (previously they could only report those who HAD collected their packs), then annotating this in Communicare at the health service as a clinical item ('non-adherent') to prompt a conversation when the patient next attended the clinic. This process ultimately improved Webster pack collection by 10-15%, with presumed improvements in patient health related to better medicines adherence

## ENABLERS

Pharmacists were asked to identify individual enablers to the establishment & successful implementation of their role at their respective ACCHS; they were then tasked with grouping these into themes for further exploration & discussion. These themes included...

- **Availability of local cultural induction**

During IPAC Project training conducted by the PSA, all pharmacists either participated in a half-day general cultural awareness workshop titled 'Pharmacists working with Aboriginal and Torres Strait Islander people' or were offered the opportunity to undertake the RACGP's online 'Cultural awareness and safety training' online modules. Pharmacists were also encouraged to undertake local cultural training at their respective Aboriginal Community Controlled Health Service if available.

For sites where local cultural induction was available, pharmacists attending the induction reported that this assisted their understanding of the history & priorities of the community in which they would be working. In some locations the induction program gave the pharmacist the opportunity to meet and talk with local Elders who could further explain the connection between members of the community & their ACCHS.

- **Support from clinic leaders at the ACCHS**

Pharmacists consistently reported that having the support of a 'champion' who understood the IPAC project & the pharmacist's role at their ACCHS, whether they be a GP, Aboriginal Health Worker, nurse, Social & Emotional Wellbeing worker, reception or administration staff greatly assisted with their integration into the health service.

In particular the champion was able to help the pharmacist with obtaining informed patient consent to participate in the project, developing referral pathways, understanding the needs of the ACCHS, & directing the flow of patients to see the pharmacist.

- **Inclusion in all-staff meetings at the ACCHS**

Pharmacists who were invited to attend staff gatherings such as all-staff meetings, the 'morning huddle', or clinical team meetings reported that this helped increase staff awareness of the pharmacist & their project role at the health service, thereby assisting with integration. Conversely this attendance also enabled the pharmacist to better understand the various roles of other staff within the health service & to liaise with the team to see where the pharmacist best fitted into the flow of the clinic's daily activities.

- **Provision of a ACCHS shirt/uniform**

Pharmacists who were offered a uniform or shirt bearing the health service logo reported feeling that this conveyed to patients the message of acceptance & trust by the ACCHS & assisted with more timely integration into the clinic team. In some circumstances where a health service staff uniform was not available, some pharmacists wore a shirt bearing the logo of their local community pharmacy to aid association between their presence at the health service & their profession.

- **Availability of a cultural escort**

For reasons of personal and cultural safety the IPAC Project protocol directed that pharmacists could only conduct patient visits at locations other than the health service if a cultural guide was available to accompany them. This escort could be any representative from the health service, such as an Aboriginal Health Worker or transport driver. In sites where there was ready availability of this support, the pharmacist was able to respond to the needs of the patient in terms of preferred location for service delivery (eg. Home Medicines Reviews, follow up, medication adherence assessment & support).

Importantly the cultural escort was often able to share insight & information about the patient's likely whereabouts &/or events taking place in the community which may influence the patient's personal priorities & health choices.

The ability to get out into community was seen as very valuable to ensure patient follow up, especially in circumstances where the patient was not inclined or able to attend the clinic to see the pharmacist there.

- **Attendance at patient group meetings & community events**

Pharmacists universally reported that considerable time was needed to develop rapport & trusting relationships with patients & staff. Seeking permission to join gatherings such as Elders Group meetings, Women's group meetings, Stolen Generation meetings & smoking ceremonies proved to be an effective way to demonstrate genuine interest in the community & its priorities, & subsequently assisted with encouraging patients to come & see the pharmacist. Taking part in community events or celebrations (eg NAIDOC Week, National Reconciliation Week & National Sorry Day) supported by the health service was another effective way to increase acceptance as a member of the clinic team. Pharmacists also commented that conducting comprehensive medication reviews for members of the health service staff, who then 'spread the word' to others, was an effective strategy to increase patient engagement.

- **Frequent contact with community pharmacy & external stakeholders**

Pharmacists commented that taking the time to meet (preferably in person) with key people external to the health service but involved in the patient medication cycle of care was very worthwhile to explain the integrated pharmacist role & to encourage open communication.

They added that it was important for this sharing of information to be a 2-way arrangement, enabling both parties to seek & provide relevant patient-related information to optimise patient safety throughout transitions of care.

Pharmacists stated that developing close working relationships with community pharmacy enabled the IPAC pharmacist to become a valuable conduit between the health service & community pharmacy, positively addressing any challenges associated with exchange of information (eg lost faxes) or medicines reconciliation. They added that this appeared to also facilitate improvement in relationships between the community pharmacy & the GPs at the health service.

Of note is the comment by pharmacists working part-time stating the importance of co-ordinating systems of communication with community pharmacy so that this works effectively even when the IPAC pharmacist is not on-site.

- **Pre-existing local knowledge**

Pharmacists reported that there were advantages associated with having already lived or worked in the community in which their health service was located. These advantages included already being a 'familiar face' to the health service, with an accompanying level of trust already developed, & an understanding of local issues.

- **Good understanding of local services**

Pharmacists commented that even if they were not originally based in the same community as the ACCHS, taking the time to explore & understand the support (eg housing, crisis accommodation, meals or transport) available locally to patients was invaluable. One pharmacist commented that sometimes a pharmacist needs to help a patient with a critical social issue before they are in a position to be able to address their health needs.

- **Availability of a predictable clinic room to work from**

Pharmacists described the consulting room 'pressure' which often existed at ACCHSs due to the number of visiting specialists & allied health staff, leading pharmacists to be relocated between clinic rooms or 'outed' altogether. In sites where a consistent room was available to the pharmacist, the pharmacist reported that this greatly assisted their ability to see & follow up patients as staff & patients could easily find the pharmacist.

- **Proximity of pharmacist consulting room to GP consulting room**

Pharmacists reported that having a room in close proximity to the GP's consulting room resulted in a greater number of opportunistic discussions with GPs, who could 'pop in' at any time with a patient or medication-related query. They added that they felt they received more HMR referrals by being in close proximity to the GP(s). Furthermore, the GPs could direct or escort patients to see the pharmacist, or vice-versa, from one appointment to the next, reducing the likelihood of patients leaving the clinic prior to seeing both clinicians.

- **IT support with clinical software at the local ACCHS level**

Pharmacists reported that despite some basic training, time was needed to become familiar with the functionality of the clinical information system (either Best Practice or Communicare) at their respective health services. Having the assistance of a staff member with significant IT expertise helped not only with ensuring that appropriate user settings & permissions were granted from the start, but also with the creation of new templates to streamline ongoing work & reporting processes. Also, the quicker the pharmacist became familiar with navigating patient records, prior medical history, specialist letters & pathology results, the more confident they felt in making clinical recommendations to GP's. They added that having access to patient medical records enabled more meaningful clinical recommendations to be made, as they were privy to prior treatments already tried. One pharmacist reported that in health services which are staffed predominantly by locum GPs, having a regular integrated pharmacist with access to clinical records & a good rapport with regular patients was seen by the GPs as being vital to continuity of care. In some sites remote access to the clinical information system was granted to the pharmacist, which assisted with offsite completion of project activities.

- **Integrated pharmacist model**

Pharmacists commented that the model of service delivery offered by the IPAC Project itself assisted with integration into the health service clinical team as well as development of patient rapport by allowing time for multiple follow up encounters with patients & staff.

By being on-site pharmacists were able to participate in multi-disciplinary case conferences, & the opportunity for prompt interaction with other clinicians facilitated in many instances timely medication changes within the timeframe of the patient's appointment at the health service, rather than waiting for the next patient attendance.

- **Positive 'project culture' created by PSA, JCU & NACCHO Operational Team**

The pharmacists commented that having the members of the IPAC Project operational team readily available to answer any queries was invaluable.

Also, having regular monthly teleconference meetings facilitated by PSA to unite & update the IPAC pharmacists helped with understanding of the successes & challenges experienced across the various project sites, adding that this also made them feel less 'isolated' as new health professionals in their respective health services.

- **Consistent availability of peer/collegiate support**

Pharmacists reported that being able to communicate easily with their project managers and peers via either the PSA IPAC Discussion Forum or the less formal social media WhatsApp closed group was invaluable as they could seek and/or share information across the project pharmacists in a timely manner.

The availability of project-related training material, resources & references on the PSA IPAC Training portal was also predominantly found to be useful. This portal enabled pharmacists to double check project processes, explore links to websites & resources relevant to Aboriginal and Torres Strait Islander health, & acted as a central repository for forms related to consent, adherence assessments and medicines appropriateness index surveys.

- **Option of an Aboriginal Health Service pharmacist mentor**

All pharmacists were given the opportunity to be matched by PSA with an experienced Aboriginal Health Service pharmacist who would act as a mentor during the first 6 months of their project time. Of the pharmacists who opted to undertake formal support from such a mentor, most reported that this contact was especially helpful in the early months of the intervention phase. A number of the IPAC Project pharmacists were themselves highly experienced in working with Aboriginal and Torres Strait Islander people and acted as mentors to others, alongside an experienced project operational team who sometimes offered informal mentoring within their project management role.

- **Personal attributes**

Pharmacists reported that having a flexible and adaptable mindset was critical to their successful integration into the health services. They needed to be patient and willing to explain the project and the pharmacist's role repeatedly in response to staff turnover, & to proactively ensure that other clinicians were aware of how to contact them when on-site; this was especially important when the location and/or availability of the pharmacist's consulting room was unpredictable.

Being responsive to the needs and priorities of the health service, while ensuring that the core project roles were conducted & relevant data captured, was a delicate balance requiring sensitivity & diplomacy. Pharmacists needed to be responsive to rapid changes in health service activity (such as a local community outbreaks of syphilis or Acute Post Streptococcal Glomerulonephritis), considering how their medicines knowledge may best be utilised to assist in this situation.

They also needed to have a flexible and open-minded approach to the delivery of services, whether this be changing locations for comprehensive medicines reviews or adapting the language used in education sessions to accommodate the health literacy of the intended audience.

The pharmacists commented that they needed to demonstrate initiative & creativity when it came to following up patients, especially if contact by phone or mail was not an option or when language was a significant barrier to communication.

## **CHALLENGES**

Pharmacists were asked to identify specific barriers which impeded or delayed their ability to effectively conduct their IPAC Project role; they were then asked to group these into themes for further discussion. These themes included...

- **Lack of a local project champion at some sites**

At some sites, the IPAC Project 'champion' identified by NACCHO during the establishment phase was either no longer employed at the site or was not available to assist the pharmacist as they commenced their role. The pharmacists reported feeling that this left them 'on their own', with additional time needed to identify the next project champion and develop relationships with staff, convey information about their role & understand the workflow processes at the health service. Furthermore, additional time was needed to work with staff to identify preferred ways of seeking informed patient consent for the project.

- **'Newness' of the integrated pharmacist role**

The majority of health services participating in the IPAC Project were previously unfamiliar with the potential scope of practice of an integrated pharmacist. As such some misconceptions, such as that the pharmacist was there to either supply medicines or solely to conduct Home Medicines Reviews, needed to be overcome. The pharmacists unanimously reported that a period of at least 3 months was needed to establish working relationships with key staff & to negotiate how & where the pharmacist might 'fit' in the flow of the patient experience at the clinic.

- **ACCHS preferences regarding how patients are directed to the pharmacist**

Pharmacists across the project reported a variety of different health service preferences when it came to the way in which patients would be approached to consider participating in the project. Some sites had a 'no humbugging' policy, meaning that the pharmacist was not permitted to approach patients directly, either in the waiting room or by telephone.

As such the pharmacist was reliant on other clinicians understanding and valuing their role enough to direct patients to see them, impacting upon the uptake of consented patients early in the project.

Conversely at other sites where the GP workforce operated predominantly on a locum-only roster, the opposite scenario occurred, with pharmacists being required to pro-actively identify eligible patients either in the waiting room or by means of the daily appointment book.

- **Pressure to seek patient consent & commence capture data early in the project**

Pharmacists reported feeling pressure to meet project targets for patient consent and core role activity very early in the implementation phase, commenting that they felt it was necessary to develop trust and rapport with patients prior to seeking consent. They stated that these targets were optimistic and difficult to achieve, and universally agreed that it would have been better to wait a minimum of 3 months to 'settle in' to their respective health services first, establish working relationships with staff & understand how the ACCHS operates.

- **Activity requested by the ACCHS which didn't 'fit' a core IPAC role**

Key personnel at each health service worked with their IPAC Project NACCHO representative during the establishment phase to complete a Pharmacist Activity Work Plan detailing their preferred balance of core role activities. Despite this forward planning, several pharmacists reported that their health service asked them to spend a significant amount of time performing other duties which did not align with one of the project's core roles. One example was a pharmacist being asked to visit outreach clinics to assist with governance related to medication supply and documentation. This required negotiation & diplomacy, with pharmacists keen to meet the needs of their health service while being mindful of project deliverables. In some circumstances the time spent on 'other' activity compromised the pharmacist's availability to identify eligible patients to participate in the project, &/or to undertake core role activities. Furthermore pharmacists reported that they saw a proportion of patients eligible to participate in the project but who declined to give consent.

- **Limited availability of a consulting room**

At some sites, renovations or new construction meant that a consulting room was simply not yet available for the pharmacist upon commencement. Some pharmacists reported arriving on any given work day to find that all consulting rooms were already allocated to other clinicians, predominantly those with MBS billing capacity; this meant the pharmacist would not have a private space in which to see patients on that day. Pharmacists reported that this caused a delay in seeking patient consent & delivering patient-directed activity early in the project, & then later compromised the pharmacist's ability to conduct patient follow up.

Furthermore they reported that fluctuations in the availability and/or location of a consistent consulting room made them 'less visible' to other clinicians who may not realise the pharmacist was on-site & therefore not refer patients to see them

- **Pharmacist consulting room location far away from GPs**

Pharmacists with a consulting room located far away from the GPs rooms, or in another building altogether, reported that this physical separation limited the frequency of opportunistic discussions with prescribers about patient care.

Furthermore, GPs were less likely to refer patients to see the pharmacist directly after their GP appointment, & patients were more likely to leave the clinic after seeing the GP and prior to seeing the pharmacist.

In one site the only room space available for the pharmacist was in a separate building at the far end of the street, necessitating considerable time and effort by the pharmacist to develop workflow and referral processes to ensure that they were acknowledged in the flow of the patient experience at the clinic.

- **Low FTE pharmacist role in some project sites**

With an average FTE of 0.57 across the project, many of the pharmacists worked in a part-time capacity. Those working less than 3 days a week reported that considerable time was needed to develop trust & rapport with staff & patients as they were not present at the health service every day. One particular pharmacist commented that when she spread her 0.4FTE over 3 days, she felt that she was regarded more as a member of the team than a visiting service provider.

Similarly, when establishing new processes these pharmacists needed to adopt a systems-based approach rather than relying on an individual's input, so that continuity would be assured even when the pharmacist was not on site.

- **IT challenges**

Despite receiving clear written instructions from James Cook University and the GRHANITE™ team for correct set-up of user permissions and keywords in the clinical information systems at their respective health services, some pharmacists reported that this did not quite go to plan upon their commencement. Some health services had unique preferences or requirements for allied health staff as IT users, meaning that certain elements of a patient's clinical history were not available to the pharmacist; in some circumstances this limited the pharmacists' ability to make clinical recommendations.

Upon realising this, the pharmacists took additional time to liaise with the health service IT staff to ensure that they had full access to medical records. Other sites had a slightly different version of the clinical information system (Best Practice or Communicare) which resulted in the need to adjust setup instructions.

A number of pharmacists reported intermittent internal IT problems or 'crashes' at their health services, adding that on days when the computers were 'down' all patient appointments tended to be cancelled; this impacted the pharmacists' ability to seek consent from eligible patients & to conduct patient-directed activities.

At several sites a member of staff inadvertently deleted the 'JCU Consented Patient' flags from patient records, hampering data extraction for those patients & requiring considerable pharmacist time to identify deletions & re-enter this information.

- **Clinic closures**

Pharmacists reported that significant events occurring in community impacted clinic hours & occasionally resulted in clinic closures which diminished the pharmacist's ability to do their work. Examples of events included Sorry Business, funerals & celebrations of culture. Extreme weather events such as cyclones also caused clinic closures in affected regions.

- **Language barrier in remote locations**

Pharmacists working in remote or very remote sites described the difficulty associated with seeking informed consent from patients for whom local language predominates & English is not spoken. In the absence of a local interpreter this was found to compromise the pharmacists' ability to meet the project's target for consented patient numbers.

- **Change in governance structure & management**

A number of pharmacists reported significant change in the management structure of the health service throughout the IPAC Project, leading to loss of focus on the project and diversion or distraction of key staff who would otherwise have assisted the pharmacist. At one health service this involved a complete replacement of all members of the Board during the first week of pharmacist placement.

Pharmacists reported that different management preferences could significantly affect how pharmacist services were prioritised, as well as the allocation of other staff such as Aboriginal Health Workers whose support was required by the pharmacist to conduct project activity outside the health service.

- **Stability of GP workforce**

At sites employing GP registrars and/or where the GP workforce consisted predominantly or solely of locums, pharmacists found that they needed to take extra time to repeatedly explain their role to new doctors, & to discuss preferred ways to work towards a collaborative team approach to patient care. Some pharmacists reported that locum GPs were less inclined to write referrals for Home Medicines Reviews, on the basis that they may not return to the health service in a timely manner (if at all) to review the patient and complete a Medication Management Plan & subsequent MBS Item 900 claim. At some sites, a regular GP left the health service to work in another clinic nearby. Pharmacists reported that a proportion of consented patients would then 'follow' the GP to the next clinic, meaning they would be lost to IPAC follow up.

- **Clinic staff turnover**

Pharmacists reported that changes in staff tended to result in some loss of project continuity. For example if new reception staff commenced & did not have a good understanding of the pharmacist's role, they tended not to direct patients to see the pharmacist or would allow patients to leave the clinic prior to a booked appointment with the pharmacist. This compromised the pharmacist's ability to achieve targets for consent and core role activity.

- **Project duration**

Some pharmacists reported that the fixed term nature of the project initially seemed to cause staff to see the pharmacist as somewhat 'temporary' or external rather than as a member of the clinical team. While this sentiment changed over time, some pharmacists felt this slowed their integration into the primary healthcare team & therefore their ability to achieve early targets for consented patient numbers & other core role activities.

Pharmacists reported that achieving project targets within the allocated timeframes proved to be difficult for various reasons, including the time needed to integrate into the health services' clinical team & develop the trust and rapport of staff and patients alike. The initial target for patient consent within the first 5 months of the intervention phase was not achieved in any of the project sites. Furthermore pharmacists found that the aim of following up all consented patients within the middle and then final thirds of the intervention phase was difficult. Several explanations were cited for this, including competing patient community/family responsibilities, high rate of 'Did Not Attend' despite booked appointments & the fact that many patients did not have an operational phone service or fixed postal address & were therefore difficult to contact for follow up.

- **Access to remote sites**

A number of pharmacists relied upon chartered or alternate transport in order to reach their respective health services. As such, changes to transport availability sometimes compromised the pharmacists' ability to get to work. At one site the pharmacist was reliant upon a ferry service as the only way to get to the health service, with the ferry schedule changeable by season (dry vs wet) and occasionally cancelled altogether due to extreme weather conditions.

At some remote sites road access was adversely affected in the wet season, while at others the pharmacist's ability to provide core services to outreach clinics was limited by the availability of a seat/space in small planes or 4WD vehicles.

- **Data capture**

Pharmacists in health services with higher patient numbers reported that the time needed to capture project-related data each day was considerable, & impinged upon their ability to actually conduct project activity itself. Others commented that despite fully understanding the eligibility criteria for patient participation in the project they were sometimes asked to see patients who did not meet these criteria, or were asked to conduct tasks which did not 'fit' a logbook entry. While striving to minimise such occurrences the pharmacists felt this impacted upon the time available to conduct project activity.

## Appendix D. Templates and Resources created by integrated pharmacists

### D1. Medication List 1.

#### Medication List

<b>Name</b>	<b>Allergies :</b>  <b>- None known</b>
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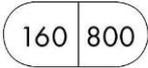
The information below will help you use the medication your doctor has prescribed safely and effectively

Medication	Dosage	Take at				Reason for medication
		B'fast  BREAKFAST	Lunch  LUNCH	Dinner  DINNER	Bed  BEDTIME	
Aspirin 	100mg	1				Thins the blood, helps stop heart attack and stroke
Atorvastatin 	80mg				1	Lowers cholesterol , helps stop heart attack and stroke
Bisoprolol  <b>Take after dialysis on dialysis days.</b>	10mg	1				Helps the heart + lowers blood pressure.

Ezetimibe 	10mg				1	Lowers cholesterol, helps stop heart attack and stroke	
Calcitriol 	0.25mcg	4				Strong bones and heart.	
Ramipril 	2.5mg	1				Helps the heart + lowers blood pressure	
Sevelamer (Renegel) 	800mg	1	1	1		For strong bones + heart. <b>TAKE WITH FOOD.</b>	
Multivitamin 		1				Multivitamin	
Fortisip drinks		Drink ONE a day or as advised by the renal team (not in your webster pack)					For nutrition.

**Medicines given at dialysis:**

Folic acid 	5mg	One tablet given after dialysis while on Bactrim during the wet season.	Helps stop infections in the wet season
Sulfamethoxazole /	800	One tablet given after dialysis during	Helps stop

Trimethoprim 	mg/160 mg	the wet season.	infections in the wet season
Mircera injection	200mcg	Given one a month, in through the dialysis line, at renal.	For strong blood.
Entecavir	0.5mg	One tablet given once a week at renal	For hepatitis B (liver) protection.

**Medicines to be taken only if needed:**

Nitrolingual pumpspray 	400mcg/ dose	Use 1 spray under the tongue if needed for chest pain. Wait 5mins, if pain still there use another 1 spray. Maximum 2 sprays in 15mins then call 000 / ambulance.	Chest pain.  If needed.  Carry this with you.
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If you have any questions about your medications or how to take them please contact (your local ACCHS), your dialysis team or speak to your community pharmacist.

List made by: (Pharmacist) Date: / /

## D2. Medication List 2:

### Medication List

The information below will help you use the medication your doctor has prescribed safely and effectively.

Updated: (date)

Medication	Strength	Brand Name	Used for:	Directions	Take at			Date Started		Recent Changes	Prescribed by
					B	L	D	Bed			
Paracetamol	665mg, modified release tablet	Osteomol, Panadol Osteo	Pain	Take TWO tablets TWICE a day (can take up to two tablets three times a day if required)	2		2		15/3/17	23/10/18: Dose increased	Dr xx

Medication	Strength	Brand Name	Used for:	Directions	Take at			Date Started	Notes	Prescribed by	
<b>Short term medicines</b>											
Sulfamethoxazole + Trimethoprim	800mg +160mg, tablet	Bactrim, Resprim	Antibiotic – treat recurrent urinary tract infection	Take ONE tablet TWICE a day for FIVE days.	1		1		23/10/2018	For FIVE days ONLY.	Dr xx
<b>Use when Required</b>											
Glyceryl trinitrate	400 mcg/dose oromucosal spray 200 dose;		Treat angina pain.	Spray 1 or 2 sprays under the tongue; repeat after 5 minutes if necessary to a maximum of 3 sprays. If 3							Dr xx

				sprays are required or symptoms last more than 10mins seek urgent medical attention.							
--	--	--	--	--	--	--	--	--	--	--	--

**Keep your Medication List up to date** by crossing out any medicines you are no longer taking and adding new medicines as they change.

Medicines to include: prescription medicines, over the counter medicines, herbal and natural medicines. Medicines of all forms should be included, for example: tablets, liquids, inhalers, drops, patches, creams, and injections.

**Take this list with you each time you visit the doctor, pharmacist or other healthcare professional or if you go into hospital.** If you have any questions about your medications or how to take them please contact (ACCHS) clinic or speak to your community pharmacist.

#### Recently Stopped medications

Date of Change	Medicine / Causal Agent	Reason
27/6/2018	Perindopril 5mg + Amlodipine 5mg tablets	Ceased due to hypotension. Replaced by Amlodipine 5mg tablets.

#### Allergies & Adverse Drug Reactions

Date of Reaction	Medicine / Causal Agent	Reaction
Unsure	Pethidine	Nausea and vomiting

**Pharmacist Consult Summary:**

**Date of Review:**

**Medication Management Plan – For you, the patient:**

**Medication Management Plan – For you to discuss with your GP:**

**Next pharmacist review:** Upon request or 3 months.

### D3. Medication List 3:

#### Medication List

**Patient information:**

The information below will help you use the medication your doctor has prescribed safely and effectively

Medication	Dosage	Take at				Reason for medication
		B'fast	Lunch	Dinner	Bed	

If you have any questions about your medications or how to take them please contact (ACCHS) or speak to your community pharmacist.

Generated by: \_\_\_\_\_ (pharmacist)

Date: \_\_\_\_\_

## D4. Protocol for crushing medicines:

### Instructions for crushing (patient X)'s Medication

	<u>Instructions:</u>	<u>Photo</u>
1.	Check medication list	
2.	Gather equipment: crusher, cup of water, empty cup for crushed meds, yoghurt/custard tub, tea spoon, gloves and mask	
3.	Put on PPE- gloves and mask	
4.	<u>Dissolve pantoprazole granules:</u> <ul style="list-style-type: none"> <li>- Empty content of pantoprazole sachet into water</li> <li>- Allow to dissolve</li> </ul>	
	<u>Crushing tablets:</u>	
5.	- Crush tablet with crushing device and put in empty cup	
6.	- Repeat for all crushed meds	
7.	- Ensure all powder is removed from crusher	
8.	<u>Empty out ramipil capsule into powder mix</u>	
9.	Add yoghurt/custard to powder mix- stir	
10.	Ensure (patient X) is sitting upright (not in bed or recliner chair) and is alert	
11.	Give (patient X) yoghurt/custard and water immediately – use a teaspoon	

### Training instructions and records

- Skill or Competency: **Following the crushing medication process correctly**
- Instruction Details: Read this guideline. Discuss with the supervisor the steps involved
- Modelling Details: Supervisor to model the crushing protocol and describe what they are doing- use real tablets e.g. Panadol.
- Rehearsal and Feedback Details: Staff member to practice by themselves. When they are done the supervisor to talk about what worked well and changes they could make. Repeat the process if needed.
- This record to be completed for **every** staff member

Learner Name:		Role:	<i>Disability Support Worker</i>
Trainer Name:		Role:	<i>Shift Supervisor</i>

Skills/competency to be updated once protocol is finalised.

Skill/Competency	Observed?	Proficient?	Signed:	Date:	Comments:
Check medication list					
Gather equipment: crusher, cup water, empty cup for crushed meds, yoghurt tub, spoon etc					
Put on PPE- gloves and mask					
<u>Dissolve pantoprazole granules:</u>					
- Place tablet in cup of water					
<u>Crush tablets:</u>					
- Crush tablet with crushing device and put in empty cup					
- Repeat for all crushed meds					
- Ensure all powder is removed from crusher					
<u>Empty out ramipil capsule into powder mix</u>					
Add yoghurt to powder mix- stir					
Give patient yoghurt and water immediately					

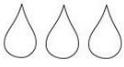
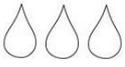
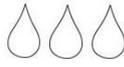
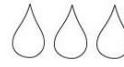
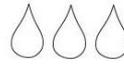
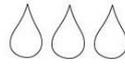
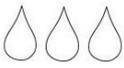
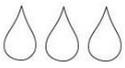
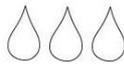
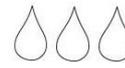
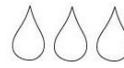
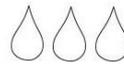
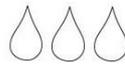
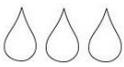
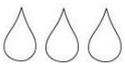
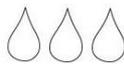
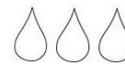
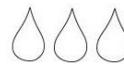
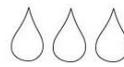
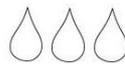
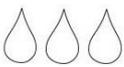
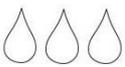
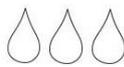
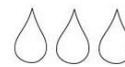
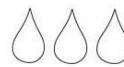
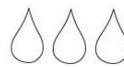
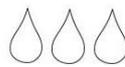
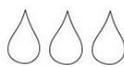
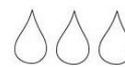
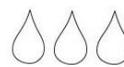
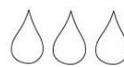
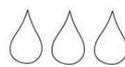
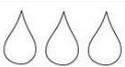
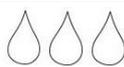
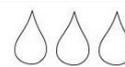
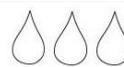
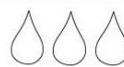
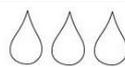
## D5. Eyedrop instructions for patients



Eye drop instructions for: \_\_\_\_\_ Date: \_\_\_\_\_ (ACCHS logo)

Name of Eye drop:							
Instructions from Dr:							
Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	○○○	○○○	○○○	○○○	○○○	○○○	○○○
	○○○	○○○	○○○	○○○	○○○	○○○	○○○
	○○○	○○○	○○○	○○○	○○○	○○○	○○○
	○○○	○○○	○○○	○○○	○○○	○○○	○○○
	○○○	○○○	○○○	○○○	○○○	○○○	○○○
	○○○	○○○	○○○	○○○	○○○	○○○	○○○

Name of Eye drop:							
Instructions from Dr:							

<b>Time</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>
							
							
							
							
							
							

Prepared by: Dr

## D6. ACCHS pharmacist flyer

(ACCHS logo)

ACCHS name  
ACCHS address  
Phone:  
Fax:

# PHARMACIST

## Do you have ANY questions about your medicines:

- What are they for?
- Why am I taking so many?
- Do they all go together?
- Do they have side-effects, can they make me sick?
  - Can I take less?
- Do I have to eat when I take my tablets?
  - What if I miss some?

There is now a PHARMACIST (name) at (ACCHS) available to help & answer your questions!

Make an appointment to come in and have a yarn.....  
or make a time and he can come to you to you can talk about your medicines.

Phone: \_\_ \_  
to make an appointment.

(ACCHS logo)

ACCHS name  
ACCHS address  
Phone:  
Fax:

## D7. Patient contact letter

(ACCHS logo)

ACCHS name

Address

Phone:

Fax:

Dear TEST JERRY H SPRINGER

9 dumb lane

Caravonica QLD 4000

Dr \_\_\_\_\_ has requested our pharmacist to come to your home to have a chat to you about your medication, or a home medication review.

We have been unable to contact you by phone – could you please contact our pharmacist on mobile .....to arrange a time for us to visit.

We are happy to sit outside and have a yarn about your medication to make sure everything is going ok for you at a time that suits you.

Kind regards,

Pharmacist (name)

# D8. HMR tracking spreadsheet

## HMR Tracking

Patient		HMR	Pharmacist		HMR	Report	MBS	Reminder
First name	Surname	referral date	conducting HMR	Referring GP	complete date	received	Item 900 billed	completed
Bob	Down	1/02/2019	Ms AB	Dr CD	14/02/2019	Yes	Yes	NA
Fay	Smith	7/03/2019	Ms AB	Dr EF	28/03/2019	Yes	Pending	Yes

## D9. HMR and MMP template for Communicare

### Home Medicines Review (HMR) Report

Date:

General Practitioner	Accredited Pharmacist	Patient
Name	Name	TEST JERRY H SPRINGER
ACCHS name	ACCHS name	9 dumb lane
ACCHS address	ACCHS address	Caravonica QLD 4878
Phone:	Phone:	Phone: 0124 367 894 (M)
Fax:	Fax:	Date of Birth: 01/05/1973
		Medicare No.:

Thank you for referring **TEST JERRY H SPRINGER** for a Home Medicines Review. We met at home on (insert date).

I note your concerns relating to risk of medication related adverse effects: .

- 5 or more medicines
- >12 doses per day
- Significant changes in last 3 months
- Medication with narrow therapeutic index or medication requiring therapeutic monitoring
- Symptoms suggestive of an adverse drug reaction
- Sub-optimal response to treatment with medicines
- Suspected non-compliance or inability to manage medication related therapeutic devices
- Patients having difficulty managing their own medications because of literacy or language difficulties, dexterity problems or impaired sight, confusion/dementia or other cognitive difficulties
- Patients attending a number of different doctors, both general practitioners and specialists
- Recent discharge from a facility/hospital (in the last 4 weeks).
- Unstable or deteriorating conditions.

The patients main medication related concern was:

**Relevant patient information:**

Pharmacy	
Dose aid/administration	
Devices	
Allergies	
Issues affecting medication adherence:	
Disabilities	
Carer	
Cognition	

**Current/Regular Medication**

Date	Until	Current/Regular Medication	Dosage	Comments
15/08/2018	11/02/2019	Metformin hydrochloride 850 mg coated tablet; 850 mg		
12/02/2018	31/07/2018	Amlodipine 10 mg tablet; 10 mg	one	
07/02/2018	08/04/2018	Lantus 3 mL Cartridge Solution for injection; 100 units/mL 3 mL cartridge	40U daily	
24/01/2018	24/07/2018	Metformin hydrochloride 1000 mg coated tablet; 1000 mg	two tablets with meals by mouth	
24/01/2018	24/04/2018	Ritalin LA Long acting capsules; 10 mg	30mg mane by mouth	
24/01/2018	24/04/2018	Paracetamol 120 mg/5 mL syrup 100 mL; 120 mg/5 mL 100 mL	1g four times a day	

14/03/2017	10/09/2017	Atorvastatin 10 mg coated tablet; 10 mg	one OD	
14/03/2017	16/04/2017	APO-Omeprazole Tablets; 20 mg	20mg	
22/09/2014	29/09/2014	Adrenaline acid tartrate 0.1 mg/mL solution for injections 10 mL; 0.1 mg/mL 10 mL 1:10,000	half a	

Please find my concerns, findings, interventions and recommendations in the following report.

I acknowledge there may be sound clinical reasons why my recommendations may not be considered appropriate for this patient. I would welcome advice on this and would be pleased to provide supporting literature or clarification in relation to any recommendations.

Thank you for the opportunity to contribute to this patient's care.

Yours faithfully,

(Name)

Pharmacist

**References:**

*Therapeutic Guidelines Online*

*Australian Medicines Handbook Online*

*MIMS drug information Online*

*Royal College of Pathologists of Australasia RCPA Manual Online*

*American Geriatrics Society 2015 Updated Beers Criteria for Potentially Inappropriate Medication Use in Older Adults* <http://onlinelibrary.wiley.com/doi/10.1111/jgs.13702/full>

NOTE: As of the 1<sup>st</sup> February 2018, a copy of the **Medication Management Plan** must be sent to the patient's community pharmacy (with patient's consent).

**Verbal consent given?**

At the follow-up appointment,

- please make notes in the MMP column and save the document to the patient's file.
- please print the MMP, FAX to the pharmacy and provide a copy to the accredited pharmacist, then claim Item 900.

Your feedback is greatly appreciated. I can be contacted on the above phone numbers or by email to discuss the HMR Report.

## Home Medicines Review (HMR) Medication Management Plan (MMP)

### General Practitioner

(Name)  
(ACCHS name)  
  
(ACCHS address)  
  
Phone:  
  
Fax:

### Accredited Pharmacist

(Name)  
  
(ACCHS name)  
  
(ACCHS address)  
  
Phone:  
  
Fax:

### Patient

TEST JERRY H SPRINGER  
9 dumb lane  
  
Caravonica QLD 4000  
Phone: 0124 367 894 (M)  
Date of Birth: 01/05/1973  
Medicare No.:

### Issues / Findings & Interventions and Recommendations:

(including issues resolved during visit)

### Medication Management Plan (MMP)

**(to be completed by GP)**

_____ :  • <b>Recommendation for GP:</b>	<input type="checkbox"/> No action required <input type="checkbox"/> Action (Comment):
_____ :  • <b>Recommendation for GP:</b>	<input type="checkbox"/> No action required <input type="checkbox"/> Action (Comment):
_____ :  • <b>Recommendation for GP:</b>	<input type="checkbox"/> No action required <input type="checkbox"/> Action (Comment):
_____ :  • <b>Recommendation for GP:</b>	<input type="checkbox"/> No action required <input type="checkbox"/> Action (Comment):
_____ :  • <b>Recommendation for GP:</b>	<input type="checkbox"/> No action required <input type="checkbox"/> Action (Comment):
_____ :  • <b>Recommendation for GP:</b>	<input type="checkbox"/> No action required <input type="checkbox"/> Action (Comment):

---

**Date:**

**GP Name:**

---

**Completed MMP faxed to pharmacy**

---

**Completed MMP to accredited pharmacist**

---

**Item 900 claimed**

---

**Updated Medication summary sent to pharmacy if changes**

---

## Appendix E. Case studies and pharmacist reflections

### Case study 1:

#### **Patient Mr Male (MM) 55 year old, 16/3/19**

MM attends multiple different doctors and health centres, and had multiple hospital discharges in (town) over the last 6-12 months.

MM has a history of active Hepatitis B with oesophageal varices, recently discharged from hospital with upper GI bleeding.

Going back through the notes and his history, I noticed a lot of medications seemed to be missing.

MM was initiated on entecavir following one of his previous hospital discharges but this had been recently ceased/omitted on discharge summaries with no apparent reasoning behind it, putting MM at risk of worsening hepatic symptoms and decompensation.

MM had been on propranolol and pantoprazole for his oesophageal varices and recent GI bleed and these too had been ceased with no apparent reason.

I completed a medication review for MM. Doctors were unsure as to why these medications had been ceased (I believe there were likely to be transcribing issues for at least one of the omissions).

There was a lot of digging required for this patient - involving (hospital), the local pharmacy, (ACCHS) and another local health centre to track what had been changed, when and why.

MM was a high risk patient with multiple recent hospital discharges, and possibly would have ended up with another admission if he had not been seen by the IPAC pharmacist at the clinic.

Doctors agreed to all recommendations in HMR report, patient was recommenced on antiviral therapy for his hepatitis, propranolol for the varices and pantoprazole to reduce his risk of GI bleeding.

Doctors made a note in the clinical information system to alert other health centres regarding this patient due to his constant movements and attendance at multiple health centres.

I believe this was a very important intervention which may not have occurred for some time (or at all) if the IPAC pharmacist hadn't been at the health centre when MM came in.

(pharmacist)  
(ACCHS)

---

## Case study 2:

From (pharmacist) 25/7/2019

Hi (PSA Coordinators),

I just wanted to share you with our little success story. (PSA Coordinator) I mentioned this lady to you when you were over for the visit, however we now have real results. When I first met her, she did not have any real care for her health. She was eating sugar like it wasn't killing her and stocking up her fridge with insulin that never got opened. She was very standoffish to us all and it took a lot for her to accept me. I went to Elders group and sat next to her weekly until she opened up to me.

Her GP, the practice nurse and myself joined forces and made this lovely little lady our project. We convinced her to come into the clinic every Tuesday morning before she went to Elders group to have her Bydureon injection. She administers it to herself however she is supervised by the practice nurse to ensure she does it correctly. I also pop my head in to say hello and give her her weekly DAA.

She is now very compliant with her medication, she is proud as punch to tell me that she has lost weight. November 2018 she weighed 72.1kg and this month she weighs 66kg. She now with her extra energy she walks herself up the street to do her jobs, she proudly told me that she dislikes "those fatty pasta meals" and is avoiding sugar as much as possible (with the old treat every now and then).

Her HbA1c in November 2018 was 14% and then this month she had a reading of 8%. Her ACR in February 2019 was 103.4 mg/mmol and last month was 37.7mg/mmol.

It has been a slow process and she still has some distance to go, as her kidneys are still declining slowly, but she is so happy with her health, and the staff here at the clinic are very proud of everyone's efforts.

The diabetes educator has recently left the clinic, so we have decided to do case conferences with the patients. So we have had their GP, the practice nurse/ AHW and myself in the consults, and these are proving to be very beneficial for the client and the clinic. The client doesn't have to keep coming and going to see everyone individually and we are getting much more information from them whilst everyone is in the one room.

Just wanted to share with you both as to what is happening at the moment in (ACCHS).

Kind regards,

(pharmacist)

### **Case study 3:**

#### **HMR notes to GP regarding patient EF 17/07/19**

Client seen at home for HMR with (ACCHS outreach worker) with thanks.

EF has just got out of hospital, lots of changes to meds, note due to start dialysis on 29/7/2019 (as per client). Given only one week Webster from (hospital) on discharge so will require new Webster packs via us at (ACCHS) until dialysis is started.

EF has booked an appointment with (doctor) tomorrow morning 8:30am to help with up-dating meds. I've asked EF to please take her (hospital) Webster-pack with her to this appointment, as I cannot see a discharge summary yet in documents.

Discussed all meds/ indications / changes but EF not given a medi-list as so many changes in hospital.

I gave a new spacer and demo on use. Reporting some SOB.

I explained to EF that once on dialysis her medications will be organised via the renal unit.

#### **ISSUES:**

- DIZZINESS F/I : EF reports dizziness today. Needing to rest a lot. Multiple med changes that may be contributing to this (increased frusemide, new prazosin, increased nicorandil). Please check BP and dizziness concerns at GP consult tomorrow. I've reiterated to take things slow getting out of chairs/bed etc.
  
- OLD GTN PATCH NEEDS REMOVAL: EF showed me a patch applied at (hospital) and wondering what this is. Good question, as not listed on discharge list and date of application (8/7/19) obscuring the name of patch. I rang (hospital) pharmacy once back at clinic and confirmed a stat GTN patch 5mg was applied on 8/7/19. So this can most definitely be removed now. Appears not intended to continue on discharge (and already on oral isosorbide mononitrate). I called client back and told her she can now take off that patch.
  
- ESA OVERDUE: Darbepoetin not given whilst in (hospital), now overdue, I've emailed (hospital staff member) who is involved in client care to please help give (with thanks).

#### **MEDICATION CHANGES MADE AT (hospital):**

- NEW calcium carbonate (as phosphate binder) 1250mg TDS with meals (outside of Webster)
- NEW calcitriol 0.25mcg caps, 3 caps mane
- NEW prazosin 0.5mg BD
- NEW pantoprazole 20mg mane (query to continue or query was for inpatient stress ulcer prophylaxis)
- INCREASED nicorandil dose now 20mg BD
- INCREASED frusemide to 250mg mane

- RESTARTED gliclazide-MR 30mg daily (however see previous note from Dr. X re: this). HbA1c taken at (hospital) 7/7/19 = 7.1%.
- INCREASED Coloxyl and senna packed regular as 2 BD, however pt reports no issues with constipation so suggest to make prn (not packed).

NB: Client has thyroxine not packed (in fridge at home) also. Also given short term course of K+ supps (3 days) and oral amoxy/clav (5 days).

**Medication review:**

1) Please review dizziness concerns.

Multiple changes to meds recently, any of which may be contributing to dizziness. Currently now on: prazosin, nicorandil, frusemide, isosorbide mono, metoprolol and amlodipine. ALSO has been wearing a GTN patch left on by (hospital) in error (patch applied 8/7/19 and mentioned by pt at home visit on 17/07/19) – I have contacted (hospital) to notify them of this error. Patient asked to remove patch.

I note from Communicare records a similar issue with dizziness previously when med changes ++ attempted quickly (eg see progress note dated 24/3/14).

## **Case study 4:**

### **“Not everything that counts can be counted”**

#### **MR JK**

A lovely patient with Parkinson’s Disease has relocated back to (town) after 10 years away. He has moved into essentially low-level care (a cabin behind the nursing home) so in theory is allowed to manage his own meds. JK would like to do this very much but his PD shakes have got worse, and he’s having trouble opening the medi-sachets or Websters (we tried both). He doesn’t want to walk up to the nurses station BD for his meds (has doses 5 times a time on his PD meds, the nurses give him some doses to take back to his cabin), but he can’t really manage on his own right now. It’s hot in the sun walking up to see the nurses, plus he wants his independence to self-manage his meds.

Pharmacist interventions:

- a) I called (3 different remote community) locations of both health centres and pharmacies to track-down what his most recent PD med regime should be. Turns out we’d accidentally decreased his total daily dose of Levodopa due to confusion with meds rec / multiple moves around WA and NT. GP fixed this after I’d flagged it.
- b) I purchased 2 sets of pill-boxes for JK (large ones with press-down lids) and labelled these for 5 times daily doses. Tested JK could open them. Delivered them to the community pharmacy who agreed to fill this (somewhat unorthodox) system.

Went back to see him again at his cabin yesterday - PD shakes are much better now! Compliance excellent. Getting to hydrotherapy to the pool. Loves the pill-boxes and is allowed to keep them in his cabin, no more walking up to the nurses station in the hot sun ☺

## **Case Study 5:**

Patient WA

Biographics:

- Male
- 63 years

Medical history:

- Chronic sinusitis
- Back pain
- GORD
- Asthma
- Anxiety with depression
- High cholesterol
- Hypertension
- Eczema
- Epilepsy
- Bronchiectasis
- Melioidosis 2015
- MI 1991 and 1992

Current medical issue:

- Recent admission to hospital for elective left ankle fusion: WA was discharged from hospital in a Cam boot for 12 weeks, non-weight bearing for the first 6 weeks and partial weight bearing for the second 6 weeks. 3 months of enoxaparin was prescribed at a dose of 40mg per day.

Medications:

- Oxycodone/naloxone 5/2.5mg tablets nocte prn
- Enoxaparin 40mg daily
- Levetiracetam 1g daily
- Atorvastatin 80mg daily
- Aspirin 100mg daily
- Citalopram 40mg daily
- Perindopril/amlodipine 10/10mg daily
- Primidone 250mg BD
- Paracetamol MR 1330mg BD prn
- Budesonide/formoterol 200/6mcg 2 puffs BD
- Tiotropium 18mcg daily
- Salbutamol prn
- Thiamine 100mg daily
- Folic acid 5mg daily
- Atenolol 50mg daily
- Isosorbide mononitrate MR 30mg daily
- Mometasone nasal spray 2 sprays prn

Issues identified:

1. Duration of anticoagulant therapy:

Issue: WA was complaining about the daily injections which were causing him pain and leaving him with bruising. After reviewing the literature (see appendix 1) I found no evidence to support the extended duration of anticoagulants in patient with lower limb injuries or immobility.

Recommendation: ceased enoxaparin.

Outcome: I spoke to the GP who agreed that the extended duration was not justified and ceased WA's enoxaparin therapy on 08/02/19 after a total of 8 weeks of therapy.

2. Folic acid:

Issue: there is no clear indication for folic acid. WA was previously on high dose co-trimoxazole in 2015 for melioidosis. Folic acid appears to have been started at the same time but was not ceased when co-trimoxazole was ceased. Folate level from 11/17 showed high folate levels (>54nmol/L).

Recommendation: cease folic acid

Outcome: folic acid was ceased by the GP.

## **Pharmacist Reflection:**

### **Email from (pharmacist) October 2019**

Hi (PSA Coordinators)

Referring to the HMR report I was speaking to you about earlier - my first thought was 'after all this work he is still having difficulty'. But then I realised - this is the satisfaction, being able to build the relationships with clients - build the trust - so that you can continue to work with them throughout - chronic illness does not just go away - he would have well and truly slipped through the cracks - I can say that without a doubt.

And the last HMR doctor review - I was in there with him, along with his support worker and at the end of the consult I was rewarded with the biggest smile from this gentleman - I had not seen that smile before and when I commented on it, he gave me another.

In the report there were a few loose endings as I wrote it on a weekend, all loose ends were tied up by the time he left the clinic

I have another example of a similar outcome - but only one HMR report - where both (IPAC pharmacist) and myself have had frequent contact with a disabled client - who is fully cognitive- numerous interventions has now made his life so much easier - and this was a team effort with his support agency - meals on wheels, GP, community pharmacy - many of the challenges have been resolved, or are on the way - we have organised his son to become a paid carer, organised appointment times to be made here so they don't clash with other services, organised a change from MPS rolls to flat blister packs at no charge from his community pharmacy, and had a new aged care assessment organised with the final view of him being able to go home to his Island into an aged care facility there.

These are the ones that make me smile 😊

(Pharmacist)

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