

Polypharmacy and medication review

Presented by:

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Content overview:

Introduction:

- NDS Positive Health Outcomes Project
- NDS Quality Use of Medicines Round Table report findings
- Providers responsibility in Quality use of Medicines

Understanding polypharmacy:

- Definitions and risks of polypharmacy
- Identifying polypharmacy

Responding to Polypharmacy

- Home Medicine Review
- MedCheck and Diabetes Check
- Case study: Garth
- References and resources list

The NDS Positive Health Outcomes Project is funded by the Department of Social Services.

Acknowledgement of Country

I would like to begin by acknowledging the traditional owners of the land on which we are meeting upon today.

We pay our respects to their Elders, past and present and any Community members with us today.

We also acknowledge that Aboriginal and Torres Strait Islander People have a deep cultural, spiritual and historical connection to Country, and that sovereignty has never been ceded.



Positive Health Outcomes and QUM

NDS has been focusing on health through the national Positive Health Outcomes project – focused on health promotion, hospital discharge and medicines.

Medication is a priority area for disability providers, and the NDS QUM Round Table in October 2023 has highlighted key challenges for providers in QUM.

QUM Webinar series:

NDS in partnership with the Pharmaceutical Society of Australia (PSA) is hosting the QUM webinar series. There are two additional webinars: [Quality Use of Medication \(nds.org.au\)](https://nds.org.au)

- Foundations in Quality Use of Medicines
- Understanding and responding to medication refusal – 18th and 21st June

The NDS Positive Health Outcomes project is funded by the Australian Government.

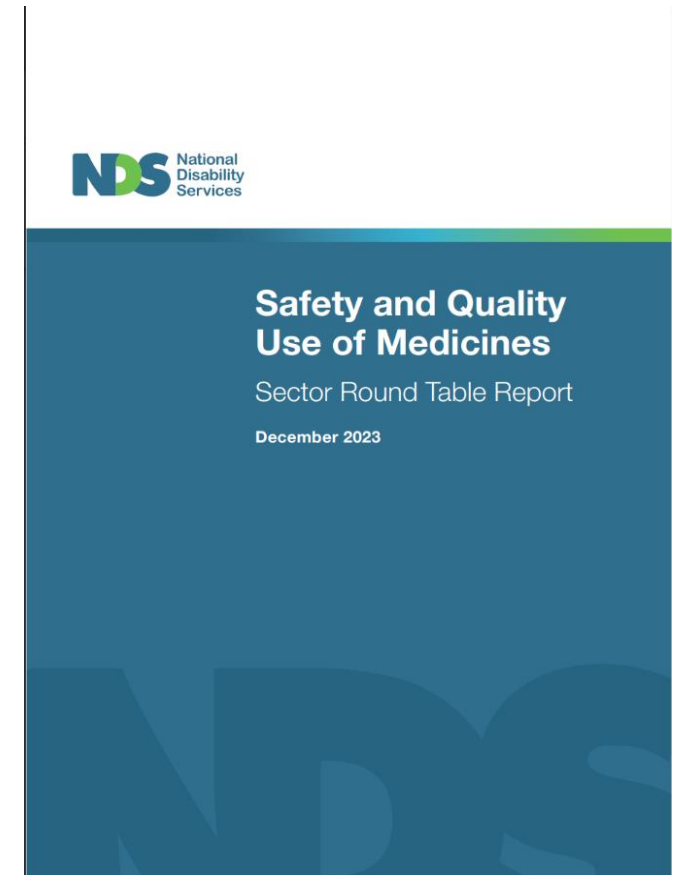
NDS QUM Report findings and next steps

NDS QUM Sector Round Table was held in 2023 to understand the barriers and challenges faced by services.

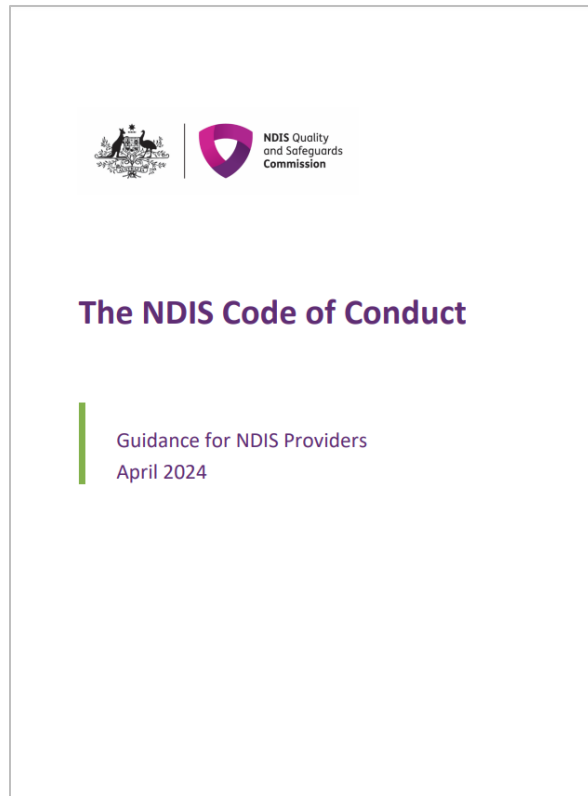
Key themes included:

1. Legislative and NDIS Commission: clarity and guidance
2. Evidence based training and competency assessments
3. Medication management: support and resources
4. Implementing QUM in services: good practice evidence
5. Stakeholder collaboration: stronger connections
6. Participants: Resources to build capability

NDS has been working closely with government and key stakeholders to discuss the challenges and ways forward.



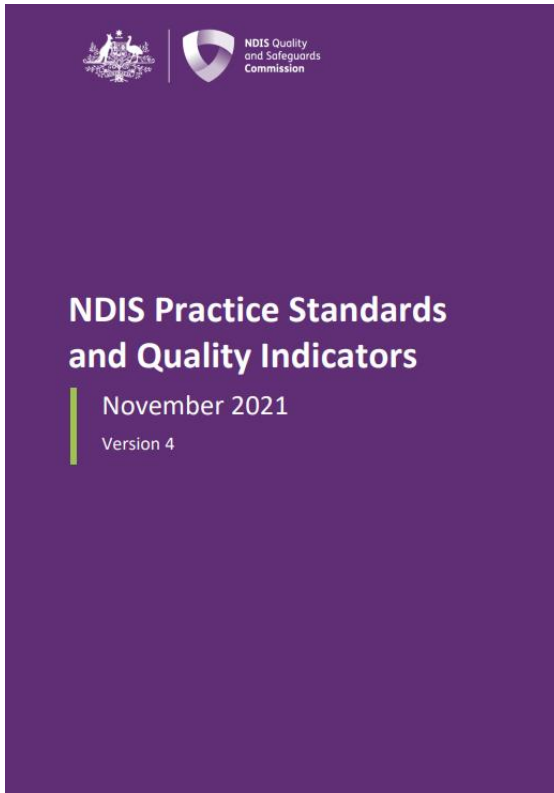
NDIS Code of Conduct ⁹



Requires all NDIS providers and workers who deliver NDIS supports to NDIS participants to:

- *provide supports and services in a safe and competent manner with care and skill;*
- *promptly take steps to raise and act on concerns about matters that might have an impact on the quality and safety of supports provided to people with disability*

NDIS Practice Standards ¹⁰




Standard: Management of Medication

*“**Records** clearly state the **medications and doses required by each participant**”.*

*“All **workers** who are responsible for administering medication understand the **effects and side-effects of the medication** and know the steps to take in the event of an incident involving medication”.*

*“All **medications** are **stored safely and securely**, can be easily identified and differentiated”.*

NDIS Workforce Capability Framework¹²


 **Check In**
Work with me to evaluate and act on what is working and what is not

What you do and how you do it

- Collect and provide me with information that is meaningful to me about how well my medication plan is working.
- Support me to identify, address and/or report any challenges or barriers to following my medication plan.
- Support me to provide feedback and request changes to my medication plan if it no longer meets my needs.
- Support me to make sure my views and interests are heard in formal and informal review processes.

What you know

- Medication review processes, such as a domiciliary or home medicines review.
- The role of workers in collecting and reporting information and contributing to the evaluation and review of medication plans.

 **Specialised support capabilities**

Support me to implement my medication plan

Your Impact

Be Present

Check In

“Support me to implement my medication plan”

Help participants understand how well their medication plan is working, address any challenges, provide feedback for changes, and ensure their views are heard in both formal and informal reviews.

Polypharmacy

Presented by Dr Hayley Croft

What is polypharmacy?

Concurrent use of five* or more medicines¹

Includes prescription medicines, over-the-counter (OTC) medicines, complementary and alternate medicines (CAMs)



Appropriate polypharmacy²:

Prescribing for an individual with complex multiple conditions where medicines are prescribed according to best evidence

Inappropriate polypharmacy²:

Multiple medicines are prescribed inappropriately, or the intended benefit of the medicine is not realised



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* Multiple medicines

When is polypharmacy more likely?

- Those who live in a residential setting (aged care/disability)³
- Prescriptions from multiple suppliers
- Moderate to severe intellectual or developmental disability^{3, 4}
- Poorer overall health
- Multiple medical conditions (multimorbidity)



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Risks associated with polypharmacy⁵

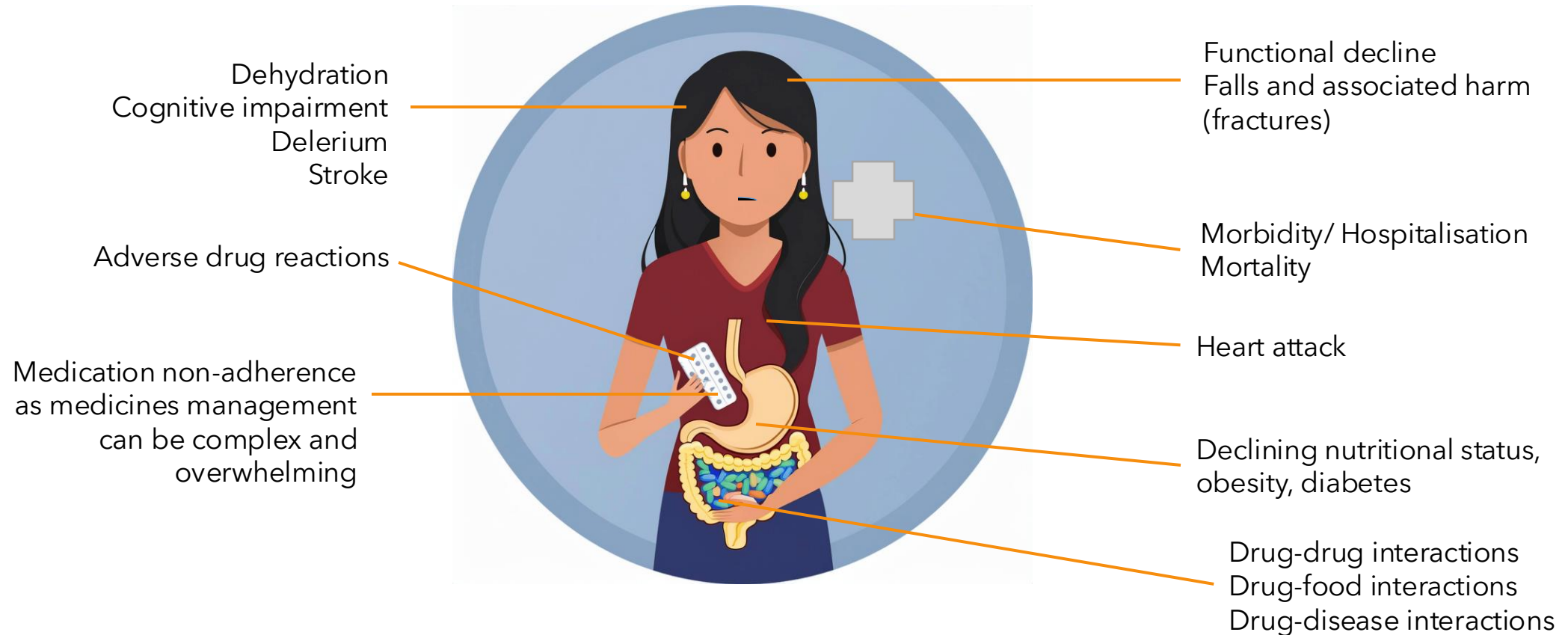


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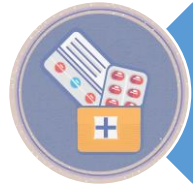
Polypharmacy use is significantly higher in people with disability ^{6, 7}



High risk medicines



Communication diversity



Multiple care providers



Staff inconsistencies

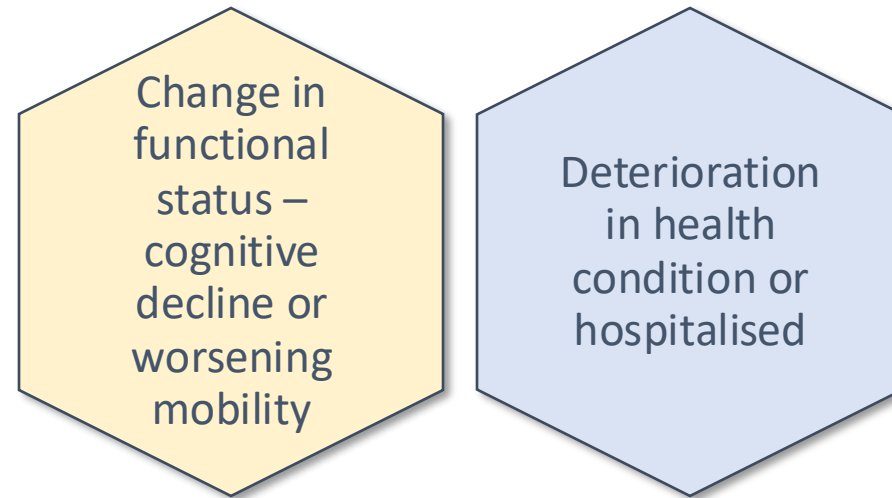


Lack of review/ monitoring of medicines

Identifying polypharmacy

Point where services may identify new or existing polypharmacy

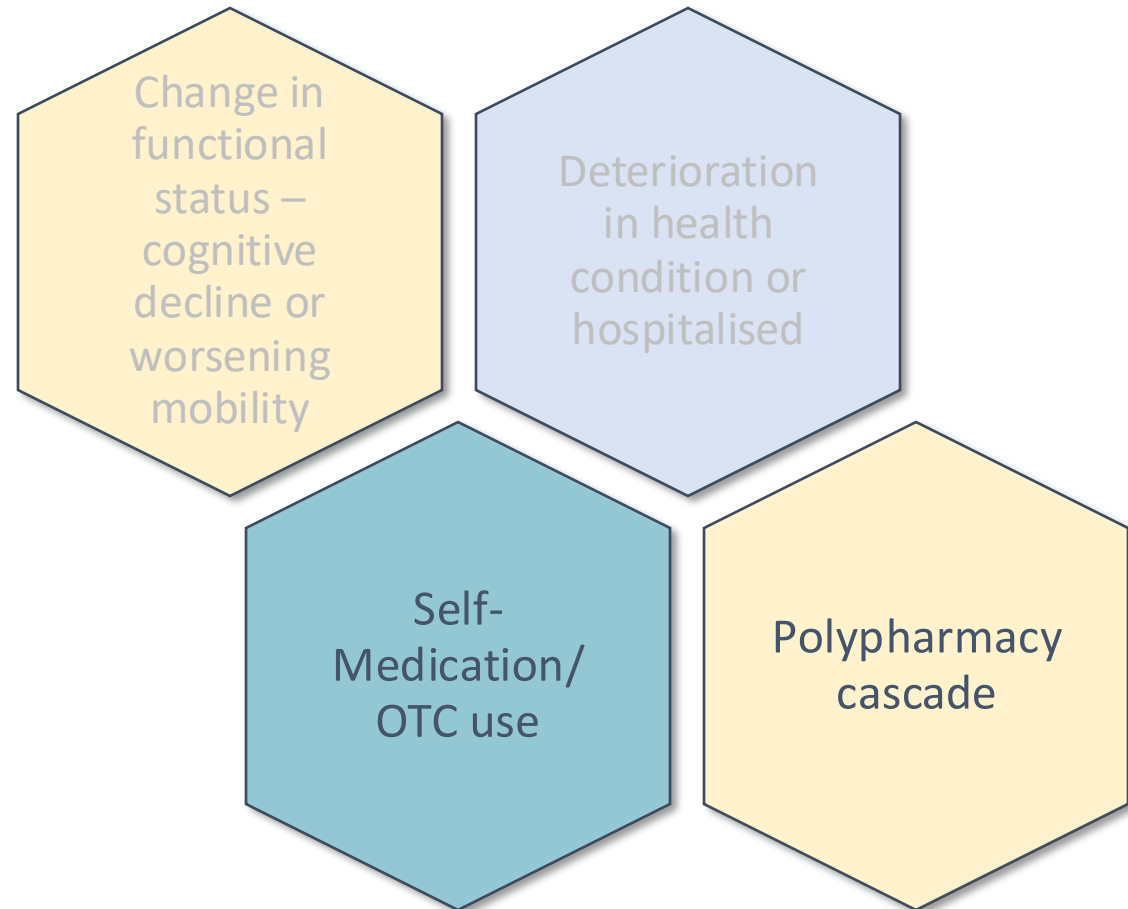
Monitor for changes in the person



Identifying polypharmacy

Points where services may identify new or existing polypharmacy

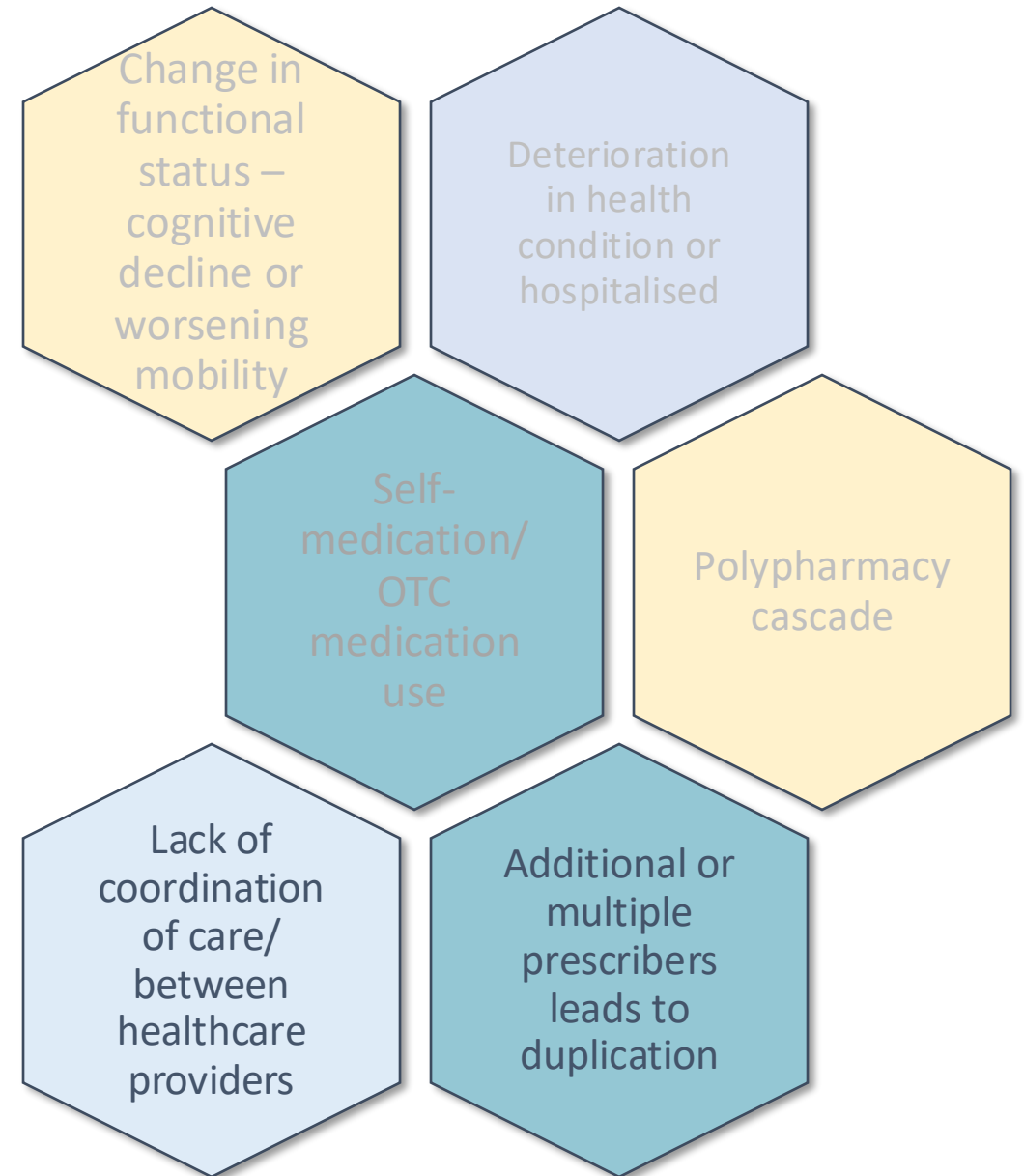
Check for new / additional medicines



Identifying polypharmacy

Point where services may identify new or existing polypharmacy

Care with multiple health care providers



What is deprescribing?

“A process of withdrawal of an **inappropriate** medication, supervised by a health care professional with the goal of managing polypharmacy and improving outcomes.”

Principals:

- Interdisciplinary
- Person-centered intervention
- Conducted under medical supervision
- Reassessment of the role of all medicines

View to stopping medicines that:

- have no clear benefit
- may cause harm
- are being used for an indication that is no longer an issue
- no longer fit with the current goals of care



Medication Management Review Programs

Support for managing polypharmacy

Regular **medication reconciliation** and **medication review** are two processes that help detect and manage drug-related problems ¹³.

Effectiveness and successful implementation of these processes requires consideration of:

- ❖ Organisational factors
- ❖ Personnel involved
- ❖ Alignment with patient preferences and goals



Medication Management Review Programs

1. Home Medicines Review (HMR) ¹⁴

- Comprehensive reconciliation and review of medicines conducted by pharmacist in patients' home
- Collaboration - provides feedback to patient, carers and GP
- Requires referral from a GP
- It is fully subsidised by Medicare for eligible patients and is available every 24 months to any person at risk of, or experiencing medication related adverse effects

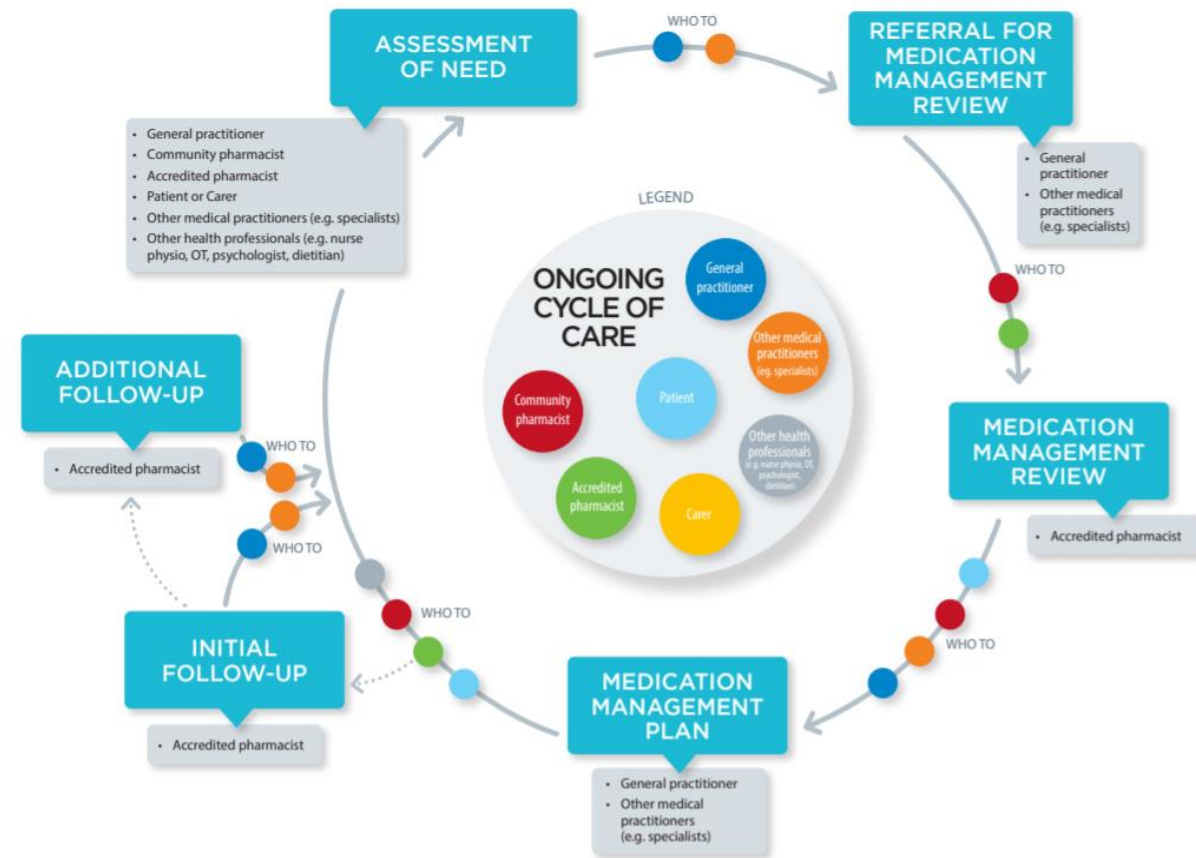


[Pharmacy Programs Administrator - Home Medicines Review](#)

Medication Management Review Programs

Home Medicines Review (HMR)

- Initiates an **ongoing cycle of care** to manage medicines related issues
- **Up to two follow-up reviews** within 9 months following initial comprehensive review
- Pharmacist can provide **education to support worker(s)**, family and any other parties likely to benefit.
- Pharmacist can liaise further with doctor & attend multidisciplinary case conferences, as needed (pharmacist not funded)



Medication Management Review Programs

2. MedsCheck Programs ¹⁵

- One-on-one discussion and medication review provided by a pharmacist
- In-pharmacy service
- Aimed at addressing concerns or questions a person has about their medicines



Check with your supply pharmacy about a MedsCheck for any medicine-related concerns



[Pharmacy Programs Administrator - MedsCheck and Diabetes MedsCheck](#)

Medication Management Review Programs

2. Diabetes MedsCheck Programs

- MedsCheck consultations that focus specifically on management of Type 2 diabetes
- Improve utilisation of self-monitoring devices, oral and injectable medicines.



Consider incorporating routine review for NDIS participants using medicine for Type 2 diabetes



[Pharmacy Programs Administrator - MedsCheck and Diabetes MedsCheck](#)

Medicines Information Services

1300 MEDICINE

<https://1300medicine.com.au/>

Free Australian government-funded service staffed by pharmacists

1300 MEDICINE pharmacists are available by telephone (1300 633 424) to answer consumer questions about medicines and help consumers report adverse reactions to medicines and vaccines to TGA



Medicines Information Services

Health Direct: National Health Services Directory

<https://about.healthdirect.gov.au/nhsd>

A national directory of health services and the practitioners who provide them
General Practice, Pharmacy, Hospital including emergency department

Health Direct: Online medicines information service

<https://www.healthdirect.gov.au/medicines>

Online medicines information service

Organisational processes

Tips for embedding strategies into organisational processes to assist with polypharmacy:

Medication policy or health plan procedure

- Standard review periods for participants medication to identify issues and polypharmacy
- Arrange for all patients with polypharmacy to have their medicines reviewed

Staff training:

- Inclusion of identifying polypharmacy and escalation of concerns

Governance and quality improvement:

Data monitoring and governance reporting:

- *How many participants have polypharmacy?*
- *What proportion of participants have had a medication review in the last 12 months?*

Practical Tips for providers and workers Initiating a Home Medicines Review Referral

Gather patient
information,
document
symptoms



"I've observed certain aspects of [patient's name]'s medication regimen that may warrant review. There are specific issues such as [mention the issues] that caught my attention. Considering the number/nature of medicines they're prescribed; I think it would be beneficial to explore a Home Medicines Review. Would you be open to discussing a referral for this service?"



Offer to provide
additional
information about
medicines review
programs or
patient; highlight
patient safety



Before approaching GP

Start discussion with GP

*Offer to provide
additional information*

Case Study

Case study – Introducing Garth

“I am 55-years old and have an intellectual disability. I actively engage as a participant in the National Disability Insurance Scheme (NDIS). I maintain my independence with the invaluable assistance of dedicated support workers”.



“I have a history of multiple chronic conditions, including reflux, obsessive-compulsive symptoms, type 2 diabetes, tremor, hypothyroidism, and unspecified indications* for psychotropic medications”.

*Exact reasons are not clearly defined

Indicators for Garth's medication review

✓ **Polypharmacy/ medicines which require close monitoring**

- > 5 (9) medicines, 12 active ingredients, 14 doses per day
- Antipsychotic medicines
- Organisational policy on *Polypharmacy and Medication Review* was followed

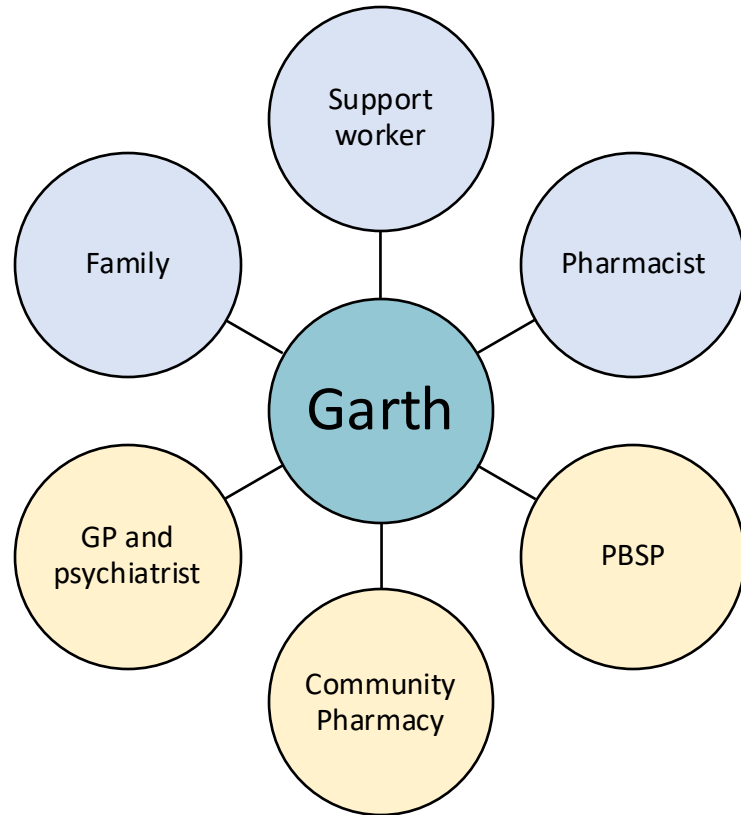
✓ **Practical issues with medicines**

- Garth frequently declines metformin due to its large size
- Organisational policy on *Medication Refusal* was followed to escalate/ seek further advice



Ensure the organisation has clear criteria for identifying patients who are vulnerable to medication issue(s) and would benefit from review

Participant-focused care



- Credentialed pharmacist conducts review with Garth and a senior support worker, with the consent and input from Garth's mum
- Garth is excited to be part of the review. He sits with the team around a table and interacts with the discussion

- Pharmacist liaises with GP via written report
- Community pharmacy receives any feedback
- Pharmacist liaises with PBSP regarding psychotropic medicines and behaviour support plan

Case study - medicines reconciliation

Process of reconciliation is important to ensure:

Accuracy: Ensuring the medication list is accurate

Complete: Contains all medicines including over the counter or complementary.

Medication	Indication
Esomeprazole 40mg morning	Reflux
Levodopa 100mg; carbidopa 25mg - 1 tablet TDS	Tremor
Levothyroxine 50mcg morning ½ hour ac	Hypothyroidism
Olanzapine 10mg night	No documented indication
Sodium valproate 500mg BD	Obsessive-compulsive symptoms
Desvenlafaxine 50mg night	No documented indication
Metformin XR 500mg evening	Type 2 Diabetes
Calcium + Vitamin D	Calcium/ Vitamin D supplement
Coloxyl with Senna 50mcg; 8mg - 3 tablets at night	Constipation



Case study - medicines review

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Psychotropic Polypharmacy

Concurrent use of two or more medicines that are “capable of affecting the mind, emotions and behaviour”.

Case study - medicines review

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Psychotropic Polypharmacy

Medications are often prescribed without a diagnosis of psychiatric disorder.

Antipsychotics are also frequently prescribed to manage behaviours of concern such as self-injury or aggression.

Case study - medicines review

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Dose optimisation

Patients often remain on high doses of medicines long term when a lower dose may be more appropriate.

Garth is on standard dose pantoprazole therapy despite showing no signs of upper GI complaints. Review the long-term use of proton pump inhibitors (PPIs) and consider stepping down therapy to 20mg, monitoring symptoms accordingly

Case study - medicines review

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Medicines may be prescribed to manage adverse effects of other medicines

Suboptimal glycaemic control could be related to metabolic adverse effects olanzapine?

Garth is also experiencing swallowing difficulties with metformin?

Practical issues with medicines

Swallowing difficulties

Garth having problems swallowing large tablets, sometimes refuses large tablets including metformin.

Review medicines which may affect swallowing:

*Switch to immediate release formulation and crush.
Consider additional aids - e.g. place metformin tablet on spoon, add 5mL gloup® to cover tablet and swallow.*



Ensure the organisation has an established escalation pathway for seeking advice and intervention in cases of medication refusal and swallowing problems

Issues with documentation of medicines



There were two medication chart orders for levodopa/ carbidopa 100/25.

One was for TDS prn and the other for QID. Prone to dosing error.



Ensure clear protocols for identifying and rectifying duplicate or missing orders on medication charts.

Summary: supporting NDIS participants receiving polypharmacy

- ✓ Arrange for a medical practitioner or pharmacist to review medicines every 3 to 6 months
- ✓ Arrange to have medicines reviewed through HMR program
- ✓ Keep a record of when participants last had their medicines reviewed
- ✓ Ensure participants, career and/or support staff have ready access to full list of medicines
- ✓ Follow up on any potential medication-related concerns - adverse effects, emergence of new symptoms or changes to health condition - especially following changes to medicines



Supporting NDIS participants receiving polypharmacy

NDIS Polypharmacy video



[Practice Alert - Polypharmacy \(youtube.com\)](https://www.youtube.com/watch?v=...)

Easy Read: Home Medicines Review



[Easy read resource on Home Medication Review](https://www.summithealth.com.au/resources/easy-read/home-medicines-review)

References

1. WHO. Medication Safety in Polypharmacy: Technical Report. 2019. <https://www.who.int/publications/i/item/WHO-UHC-SDS-201911.2019>.
2. Daunt R, Curtin D, O'Mahony D. 2023. Polypharmacy stewardship: a novel approach to tackle a major public health crisis. *The Lancet Healthy Longevity*. (4): pp e228-35.
3. Reppermund S, Srasuebku P, Dean K, Trollor J. Factors associated with death in people with an intellectual disability. *J Appl Resear Intellect Disabil* 2020; 33(3): 420-9. <https://onlinelibrary.wiley.com/doi/abs/10.1111/jar.12684>
4. Bowring DL, Totsika V, Hastings RP, et al. Prevalence of psychotropic medication use and association with challenging behaviour in adults with an intellectual disability. A total population study. *J Intellect Disabil Res* 2017;61:604-17
5. NDIS Practice Alert - Polypharmacy
6. Hearing 6, Disability Royal Commission Report. Psychotropic medication, behaviour support and behaviours of concern 5th September, 2020. https://disability.royalcommission.gov.au/system/files/2021-07/Report%20-%20Public%20hearing%206%20-%20Psychotropic%20medication%2C%20behaviour%20support%20and%20behaviours%20of%20concern_0.pdf
7. Sheehan R, Hassiotis A, Walters K, et al. Mental illness, challenging behaviour, and psychotropic drug prescribing in people with intellectual disability: UK population based cohort study. *BMJ* 2015;351

References

8. O'Dwyer, M, Peklar, J, McCallion, P. Factors associated with polypharmacy and excessive polypharmacy in older people with intellectual disability differ from the general population: a cross-sectional observational nationwide study. *BMJ Open* 2016; 6: e010505.
9. Shoumitro (Shoumi) Deb. (2018) The Use of Medication for the Management of Problem (Challenging) Behaviour in Adults who have Intellectual Disabilities. University of Hertfordshire
<http://www.intellectualdisability.info/>
10. NDIS Practice Standards and Quality Indicators <https://www.ndiscommission.gov.au/providers/registered-ndis-providers/provider-obligations-and-requirements/ndis-practice-standards>
11. NDIS Practice Standards: High intensity support skills descriptors [NDIS
https://www.ndiscommission.gov.au/providers/registered-ndis-providers/provider-obligations-and-requirements/high-intensity-daily-personal-activities#paragraph-id-2721](https://www.ndiscommission.gov.au/providers/registered-ndis-providers/provider-obligations-and-requirements/high-intensity-daily-personal-activities#paragraph-id-2721)
12. NDIS Workforce Capability Framework
<https://workforcecapability.ndiscommission.gov.au/sites/default/files/Resources/2022-05/NDIS-Workforce-Capability-Framework.pdf>
13. NDIS Code of Conduct <https://www.ndiscommission.gov.au/about/ndis-code-conduct>
14. Home Medicines Review (HMR) Program [Pharmacy Programs Administrator - Home Medicines Review](#)
15. MedsCheck Program [Pharmacy Programs Administrator - MedsCheck and Diabetes MedsCheck](#)

Resources

NDIS Commission Practice Standards, guidance and resources

- [NDIS practice standards | NDIS Quality and Safeguards Commission](#)
- [NDIS Workforce Capability Framework | NDIS Quality and Safeguards Commission](#)
- [High Intensity Daily Personal Activities | NDIS Quality and Safeguards Commission](#)
- [Medication purpose form | NDIS Quality and Safeguards Commission](#)
- [Medicines for health, not control | NDIS Quality and Safeguards Commission](#)
- [Australian Commission on Safety and Quality in Health Care - Joint Statement on the Inappropriate Use of Psychotropic Medicines to Manage the Behaviours of People with Disability and Older People](#)
- [Australian Commission on Safety and Quality in Health Care: Psychotropic Medicines in Cognitive Disability or Impairment Clinical Care Standard](#)

Resources

NDIS Commission medication related Practice Alerts

[Practice Alerts | NDIS Quality and Safeguards Commission \(ndiscommission.gov.au\)](https://www.ndiscommission.gov.au/practice-alerts)

- [Comprehensive Health](#)
- [Dysphagia](#)
- [Epilepsy management](#)
- [Medicines associated with swallowing problems](#)
- [Polypharmacy](#)
- [Transitions of care between disability services and hospitals](#)
- [Influenza vaccine](#)
- [Cardiovascular Disease](#)
- [Pain Management](#)

Resources:

Medicine information and participant resources

- NPS MedicineWise App: [Helping carers keep track of medicines – The MedicineWise App](#)
- Health Direct: [Consumer medicine information](#)
- Therapeutic Goods Administration Website [Guidance and resources | Therapeutic Goods Administration \(TGA\)](#)
- Medicines information service [Home - 1300 MEDICINE](#)

Resources for participants:

- [Council For Interlectual Disability: Me and my medication \(cid.org.au\)](#)
- NDIS Commission Resources for people with disability: [Resources for people with disability](#)

Resources

Risk and Incident Resources:

- [NDIS Commission: Resources to support incident reporting, management and prevention](#)
- [NDS: Risk, Incident and Management resources](#)

Disability and Medicines Reports:

- NDS Quality Use of Medicines Sector Round Table Report 2023 [Policy Library \(nds.org.au\)](#)
- [Pharmaceutical Society of Australia: Medicine Safety Disability Care report](#)

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