Supplementary file 4. Mapping of TDONTD barriers to Theoretical Domains Framework domains to implementation strategies – Detailed findings

TDF domain	Perceived barriers to TDONTD	Implementation strategies (detailed in Table 4)
1. Professional Role and Identity	Nurses and pharmacists • Do not identify that they have an influential role in determining the success of an AMS intervention to reduce antibiotic prescribing • Do not have an important role in changing antibiotic prescribing behaviour of other professional groups e.g. doctors • Do not identify that they have an important role in changing urine dipstick behaviour of other professional groups e.g. doctors Nurses • Do not identify that they have a significant role in initiating shared decision-making discussions with residents and families around antibiotic prescribing, as this is the responsibility of the prescriber	Organisational policies and procedures Local opinion leaders Local consensus processes
2. Beliefs about Capabilities	Nurse champions • Are confident in relying on urine dipstick testing to diagnose UTI • (Less) Confident in clinical assessment in residents with cognitive impairment to diagnose infection without the help of urine dipstick testing • (Less) Confident about using clinical pathways to assess residents with cognitive impairment because of difficulty ascertaining symptoms and signs • (Less) Confident in interpreting and applying UTI infection surveillance data to improve provision of care • (Less) Confident that dipstick practice change and antibiotic overuse could be achieved without GP practice change	Organisational policies and procedures Champions and leadership team Local opinion leaders Local consensus processes Formal education Outcome and Process surveillance

	• (Less) Confident that changes to practice and antibiotic use could be achieved without resident and family engagement • (Less) confident in engaging GPs and families in urine dipstick practice change • (Less) confident in engaging peers in practice change if resistance encountered QUM Pharmacists • (Less) confident in introducing new initiatives to improve clinical processes • Initially (Less) Confident in providing education around urine dipstick testing to nursing staff as it is not a medication • (Less) Confident in responding to clinical concerns around the potential risk of missing infections by not dipstick testing	
3. Beliefs about consequences	The following were barriers, and beliefs that were very strongly held by a minority. • Concern about potential increase in missed infections • Concerns that reducing dipstick testing would contribute to safety risks such as missing an infection diagnosis • Concern about peer criticism and judgement • Concern about criticism from GPs • Concern about resistance and complaints from families • Concern about additional work required to use a different process to assess residents for suspected infection • Concern about sanctions from the regulatory agency for missing infection • (Less) concern about AMR • (Less) Confident that non-prescriber behaviour would influence antibiotic overuse and AMR	Organisational policies and procedures Champions and leadership team Local opinion leaders Local consensus processes Formal education Outcome and Process surveillance Audit and feedback
4. Intentions	• Staff choosing to not use the clinical pathway as it required more effort to change practice • Staff resistance to change practice	Champions and leadership team Local opinion leaders

		Local consensus processes
5. Social influences	• Family pressure (anticipated or real) on aged care staff to perform dipstick testing to diagnose UTI • Influential nurse peers reluctant or refusing to change dipstick testing behaviour • Pressure from GPs requesting aged care staff to perform urine dipstick testing • External groups (e.g. hospitals outreach programs, dementia support specialists, EDs, specialists) providing conflicting advice around UTI diagnosis and use of dipstick testing to support diagnosis • Perceived negative feedback to RACH from external groups.	Champions and leadership team Local opinion leaders Local consensus processes Providing information and education to families Advocacy
6. Goals, including goal priorities	Competing priorities were barriers. These are common reasons identified: response to community COVID-19 or other transmissible infection activity and outbreaks, staff (including nurse champion) turnover.	Champions and leadership team
7. Emotion	• Fear and anxiety about missing an infection.	Champions and leadership team Local opinion leaders Outcome and Process surveillance