Streamlining documentation in patient electronic medical records: An example of chlamydia consultation shortcuts

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Background
Australian general practitioners encounter a vast array of health issues in their clinical practice. High-quality clinical record keeping is crucial to support continuity of care for patients and decision making for clinicians. Many clinical software programs used in general practice contain shortcut features that allow insertion of pre-stored, editable text into progress notes. These can be used to support documentation of specific health issues.

Objective
Drawing on our experience within a research project seeking to strengthen chlamydia management in general practice, this article describes the co-design, implementation and use of documentation shortcuts for chlamydia management.

Discussion
Shortcuts are useful as a memory prompt and timesaver for general practice clinicians. It is important that they do not replace clinical acumen and judgement. General practices using our chlamydia management shortcuts found them easy to set up, that they acted as a prompt for best practice chlamydia management and that they integrated well with the general practice workflow.

HIGH-QUALITY clinical record keeping is crucial to ensure continuity of care for the patient and to facilitate decision making for healthcare providers. General practitioners (GPs) encounter a vast array of health conditions in their clinical practice,[1] and whatever the condition, it is crucial they maintain comprehensive and clear records of the clinical consultation.[2–3] The context for clinical record keeping in general practice is evolving to increase use of electronic health records and records that allow sharing of targeted healthcare information with other providers and consumers.[3] The RACGP's *Standards for General Practices* outline key aspects of the consultation that should be included in the patient record, including relevant clinical findings, diagnosis, recommended management, medications prescribed and patient consent for third parties present.[4]

Many clinical software programs used in general practice contain shortcut features that allow users to insert pre-stored, editable text into the progress notes section of the patient electronic medical record (EMR). This can reduce time taken to document a clinical consultation and can serve as a prompt for clinicians to ensure key aspects of the consultation are not missed. Although the exact process and terminology vary by clinical software, this is generally done by typing some shorthand text and pressing 'enter' or the space bar to autopopulate the clinical notes with suggested consultation notes for the relevant condition. For example, shortcuts are termed 'autofill' in Best Practice (https://bpsoftware.net), 'comment or management' in Medical Director (www.medicaldirector.com) and 'auto text' in Zedmed (www.zedmed.com.au), which are all common clinical software packages used in general practice in Australia.

Instructions for the set up and use of shortcut features are generally provided by software providers as part of their user resources. Briefly, after navigating to the shortcut feature in the relevant software, users can insert the text they would like to populate (can be copy and pasted) and specify their preferred shorthand text. The text that is stored and inserted might be as short as a few words or might contain an entire template for the clinician to work through. Shortcuts can be set up for use by individuals or for whole-of-practice use. It is also possible to find instructions for how to insert and use shortcuts elsewhere; for example, North Western Melbourne Primary Health Network provide a factsheet on their website (https://nwmphn.org.au/wp-content/uploads/2021/09/Making-an-autofill-or-comment-in-clinical-software.pdf).

Some software providers have collaborated with health professionals to provide testimonials and information about their potential uses and benefits; for example, a blog from Best Practice describes how to use the autofill function to streamline documentation of the patient notes for

upper respiratory tract infection or other conditions.[5] For sexually transmissible infection (STI) care, the use of templates in the clinical software has been recommended to prompt discussion and documentation about partner notification.[6] However, despite shortcuts being a standard function in many clinical software packages, there is limited evidence regarding their use or impact in Australian general practice.

In this article, we draw on our experience from the Management of Chlamydia Cases in Australia (MoCCA) study[7] and provide suggestions for the co-design, implementation and use of shortcuts to support documentation of the chlamydia consultation in general practice. We reflect on using shortcuts more broadly and outline their advantages and disadvantages.

Developing resources to support chlamydia management: The MoCCA study

The MoCCA study[7] is a partnership between universities, state health departments, primary health networks, and sexual health and pathology services. MoCCA aims to develop, implement and evaluate resources to support general practice in best practice chlamydia management. Chlamydia is the most diagnosed bacterial STI in Australia, with most diagnoses occurring in general practice.[8–10] For people with female reproductive organs, chlamydia can ascend from the lower to the upper genital tract to cause pelvic inflammatory disease (PID) that can potentially lead to chronic pain, ectopic pregnancy and infertility.[11,12] Repeat chlamydia infection substantially increases the risk of PID and associated complications.[12] Best practice chlamydia management goes beyond testing and timely treatment of diagnosed infections. It includes discussion about partner notification, organising retesting for re-infection, education and support for early detection of PID.[13] However, available evidence suggests improvements are needed in these aspects of chlamydia management. High chlamydia reinfection rates (up to 22%)[14] suggest missed opportunities for informing and treating sexual partner/s. To reduce potential harms from repeat infection, Australian STI guidelines recommend retesting around three months after treatment,[15] but retesting rates are low (<25%).[16,17] Furthermore, evidence shows PID can go undiagnosed or be suboptimally managed.[18–21] The MoCCA study seeks to address these gaps by improving retesting for repeat infection within recommended timeframes, improving partner management (including patient-delivered partner therapy (PDPT; the provision of an antibiotic prescription or medication to an index patient with chlamydia to pass along to their sexual partners,[22–24] where appropriate) and increasing clinician confidence in diagnosing PID. The potential benefits are a reduced risk of repeat infection and chlamydia-associated harms.[7]

During the initial phase of MoCCA, consultation with general practice highlighted that GPs experience time and resource constraints in managing chlamydia infections and want easily located, relevant resources.[25] Drawing on these findings, and with clinical input from our partner organisations, we developed a range of resources to support general practice in chlamydia management. The central resource is a website (www.mocca.org.au) intended as a 'one-stop shop' for chlamydia management that outlines best practice and provides links to key guidelines, patient factsheets, published articles and 'workflow resources' for streamlining chlamydia management. The workflow resources include three suggested shortcuts, outlined below.

Co-design of the MoCCA shortcuts

The MoCCA shortcuts were developed, piloted and refined during 2020–22. A summary of the content of the initial and refined versions is provided in Table 1. Initially, just two MoCCA shortcuts (Version 1) entitled chlamydia management (inserted by typing CTMx) and PDPT (inserted by typing PDPT) were developed. These were quite brief and intended to complement the chlamydia consultation clinical notes by prompting clinicians to ask about PID symptoms, sexual partners, to organise retesting and information on how to document PDPT (if provided). In 2021, the Version 1 shortcuts and other MoCCA resources were piloted in three general practices. Pilot clinics found the MoCCA resources were informative and user-friendly, but wanted more detail about PID, clearer navigation for the website and instructions for resources (including shortcuts) on the website.

The MoCCA resources were subsequently refined to enhance their content and usability. This involved several rounds of drafting, feedback and refinement with input from GPs, sexual and women's health clinicians in their role as collaborators on the MoCCA study. The refined shortcuts (Table 1) include a new shortcut for PID management (inserted by typing PIDMx) and extra detail to the chlamydia management shortcut to cover test, treat, complications, partner management, retesting, other infections, education and follow-up. The PDPT shortcut was not altered, but the option of PDPT was added to the chlamydia management shortcut. The full text for our refined chlamydia and PID shortcuts is provided in full in Appendices 1 and 2 (available online only) and available at www.mocca.org.au/resources/workflow-resources.

All shortcut content is editable and intended to support chlamydia management in two ways: first, as a timesaver whereby the clinician only needs to type CTMx or PIDMx or PDPT in the clinical notes for all editable content to autopopulate; and second, as a reminder, so that clinicians are prompted about aspects of best practice chlamydia management.

Implementation of the MoCCA shortcuts

During 2023, the refined shortcuts and other MoCCA resources were implemented in 15 general practices in New South Wales, Queensland and Victoria within a broader MoCCA implementation and feasibility trial that aims to determine how best to implement interventions to support general practice in delivering best practice chlamydia management.[7] The findings will guide scale-up plans for Australian general practice.

For most participating clinics, one staff member (often the practice manager) undertook responsibility for setting up the MoCCA shortcuts so that they were available for use by all clinicians in the clinic. Our instructions for how to insert shortcuts into Best Practice and Medical Director (the software used in MoCCA clinics) are available on the MoCCA website (www.mocca.org.au/participating-clinics/workflow-resources-clinics). Availability of the shortcuts and

their content was communicated by MoCCA researchers during study establishment.

Feedback on the shortcuts

As part of the broader MoCCA study,[7] semi-structured interviews were conducted with one or two clinical or non-clinical staff members from participating clinics to understand their views towards and use of the MoCCA resources, including the shortcuts. A total of 12 interviews were undertaken with 13 participants by two members of the research team (SM and JG) during mid-2023. All research team members discussed progress of the interviews and findings related to the shortcuts. Regarding clinic-wide implementation of the shortcuts, most participants described this process as '*Very, very straightforward*' and that the shortcut set up instructions '*made it a pretty smooth process*'. In terms of using the shortcuts, GPs and practice nurses indicated they act as a timesaver, with one nurse saying '*anything integrated with the practice management software is more likely to be useful for the doctors, if they don't have to go to an external source*' and '*doctors are just always short on time, so anything that's a short cut, or quicker* (is good)'. Others commented that the content of the shortcuts was very thorough and helped with improving consistency in care '*I just really like … that there's really clear structures around it, and so, provides a real consistency for all practitioners working*' and '*there's this consistency across staff following the really same thing. And so stuff, then, isn't getting missed*'. However, not all interviewed clinicians were using the shortcuts. Although supportive of the shortcut content, these participants reported having their own routine for recording patient notes, and thus did not require the use of the MoCCA shortcuts. Further exploration of the use of the MoCCA shortcuts will be undertaken as the MoCCA study progresses.

Advantages and disadvantages of shortcuts

We have identified a range of potential advantages and pitfalls to consider when using clinical software shortcuts, as outlined in Table 2. Shortcuts can offer a mechanism to help prompt important aspects of care for specific conditions and might offer time efficiencies and consistency in documentation. However, it is important to emphasise that shortcuts are intended to facilitate the clinical consultation and not replace clinical judgement. There are concerns that shortcuts pose a risk of populating patients' notes with clinical work that has not actually been done[26] or a risk of 'note bloat' whereby there is redundant information making it difficult to find clinically relevant information.[27] Given these risks, it is important that clinicians maintain clinical judgement when using shortcuts and ensure that they add appropriate details, delete actions not undertaken or edit unneeded information as appropriate for the specific consultation or consider other causes for the patient's presentation. The content of shortcuts should be regularly reviewed and updated to ensure it reflects current best practice.

In the Australian context, it is well known that general practice is facing significant workload challenges,[2] and any intervention

Table 1. Summary of the content of the MoCCA shortcuts

Shortcut name (shortcut text)	Description of content	
	Version 1	Refined version
Chlamydia management (CTMx)	• Brief content and intended to complement clinical notes for the chlamydia consultation • Prompt for clinicians to ask about PID symptoms, sexual partners and organise retesting for re-infection • Links to the MoCCA website	• More detailed content than Version 1. Provides editable notes for the main aspects of a consultation for treating a chlamydia infection • Additions to Version 1 include site of infection, treatment provided, allergies, other STI testing and patient education
Pelvic inflammatory disease management (PIDMx)	Not developed in the initial MoCCA resources	New shortcut details: • Detailed editable notes for documenting the PID consultation including: – differential diagnoses excluded – presenting symptoms – sexual, menstrual and contraceptive history – examination and investigations – treatment and follow-up
Patient-delivered partner therapy (PDPT)	• Brief content and intended to complement clinical notes for the chlamydia consultation • Prompt for clinicians to record if they offered PDPT, if it was accepted, for how many patients and prescription details • Links to the MoCCA website	Same as Version 1.

MoCCA, Management of Chlamydia Cases in Australia study; PID, pelvic inflammatory disease; STI, sexually transmitted infection.[7]

Table 2. Advantages and disadvantages of using shortcuts in medical record software for documenting the clinical consultation

Advantages	Potential pitfalls
✓ Facilitates an organised and streamlined workflow	× May add unnecessary or redundant information to the patient's notes, making it harder to find clinically relevant information, known as 'note bloat'[27]
✓ Saves time and improves efficiency by providing autopopulated text	× Risk of autopopulating patient notes with clinical work that has not been done[26]
✓ Aids standardisation and consistency for medical record documentation	× Content might be outdated and not reflect current guidelines and best practice
✓ Reduces the risk of forgetting important aspects of the consultation	
✓ Can act as a teaching tool for junior staff	

targeted at general practice must be cognisant of these challenges. The MoCCA resources, including the shortcuts, are designed to integrate into normal clinical practice, with the goal of supporting best practice chlamydia management without increasing workload burden. Thus far, feedback from participating MoCCA clinics suggests that the shortcuts are functioning as intended.

Conclusion

Shortcut text can be a useful memory prompt and timesaving tool for use in general practice, including for STI management. It is important that shortcuts are developed in collaboration with intended users to ensure the content is appropriate and usable. In the case of the MoCCA study, although the shortcuts were initially very brief, development and refinement with clinical partners led to significantly more detailed and comprehensive shortcut text. As with all clinical resources, shortcuts should be utilised to support the clinical consultation but not replace the clinical acumen and judgement of the clinician. Although the MoCCA study has focused on chlamydia management, shortcuts like these could also be considered for STI management more broadly.

Key points

- High-quality record keeping is crucial to ensuring continuity of care and to facilitate clinical decision making.
- Many clinical software programs used in general practice include a 'shortcut' function, allowing pre-stored editable text to be quickly and easily populated into clinical notes.
- The Management of Chlamydia Cases in Australia (MoCCA) study developed shortcut text to support best practice chlamydia management in general practice.
- Preliminary findings suggest the chlamydia management shortcuts are functioning as intended, as a timesaver and memory prompt for clinicians.
- Although shortcuts have clear benefits, they should only be used to support, not replace, clinician acumen and judgement.

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