

Can we ditch the fax yet? Maybe not quite...

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Background

Communication of information should be done in a “timely, accurate and appropriate” manner. Inadequate communication can lead to complaints about the healthcare system, poor medication management, increased readmissions and reduce the quality and timeliness of treatment.¹

At the time of their inception, facsimile (fax) machines were seen as a great technological advance. However, in the current digital era, they are becoming increasingly redundant as a means of communication. Despite this, they are still widely used within healthcare.²

Hospitals, pharmacies and general practitioner (GP) clinics may prefer fax machines due to their longstanding use and familiarity.³

However, despite their use, there are many problems associated with fax machines which include image degradation during printing and scanning, insecure fax machine location, user error and fax interception.⁴

Aims

To determine the number of pages sent or received via fax machines by the hospital pharmacy staff and describe the characteristics of the faxed communication. This data will be used to inform interventions to reduce the reliance on faxes for communication.

Method

Study Design and setting:

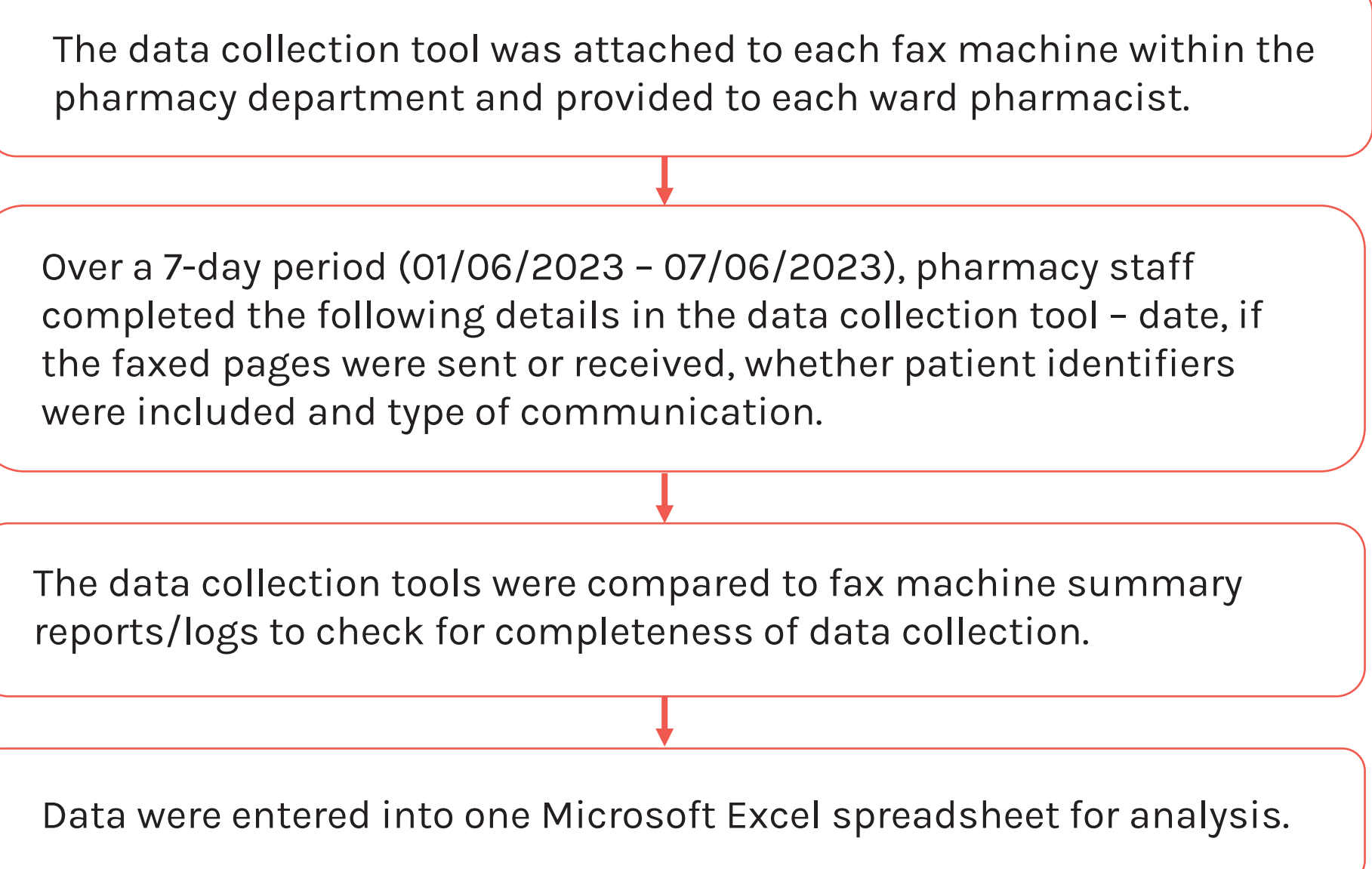
Cross-sectional, prospective, observational study undertaken across a 3-campus metropolitan tertiary referral health service.

Inclusion Criteria:

A fax machine communication sent or received by pharmacy staff within the pharmacy department or on a ward.

Exclusion Criteria:

A fax machine communication sent or received by non-pharmacy staff members on a ward.



Primary Outcome:

Number of faxed pages sent or received by pharmacy staff.

Secondary Outcomes:

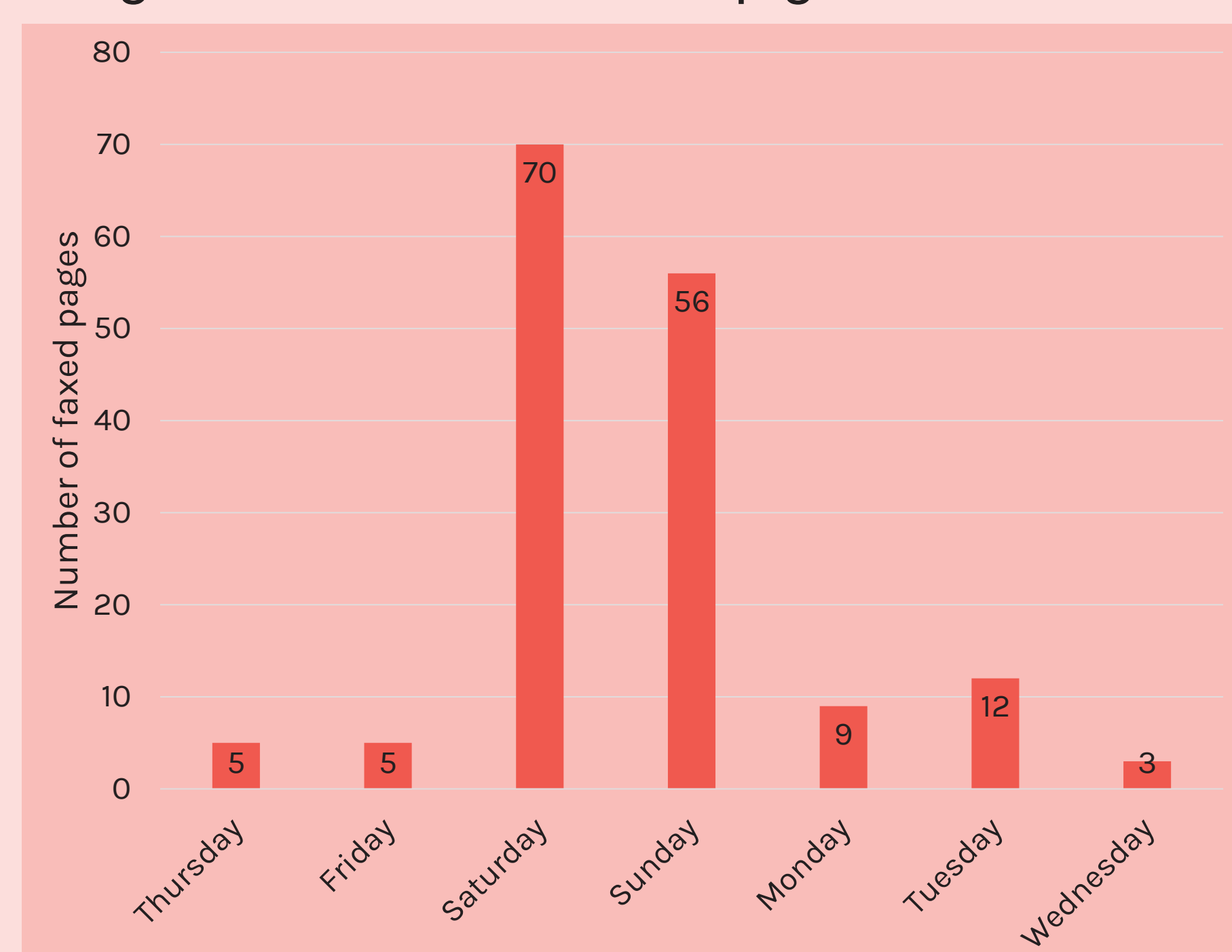
- Number of faxed pages sent or received by day of the week, location, and whether patient identifiers were included.
- Number of faxed pages of each communication type, (e.g. outpatient prescription, drug company communication, inpatient supply request, community pharmacy communication, warfarin discharge plans for community pathology services).

Results

During the 7-day data collection period, there were 160 faxed pages.

- The largest number of faxed pages were sent or received on Saturday, followed by Sunday (figure 2).

Figure 2: Total number of faxed pages sent and received



Most faxed pages were internal hospital communications involving wards requesting inpatient supplies, predominantly on the weekend.

- The main pharmacy dispensary was responsible for 126 (79%) faxed pages (sent and received) and 117 (93%) of these were inpatient supply requests.

ONLY 34 (21%) faxed pages were sent or received on a weekday (21 pages were sent, and 13 pages were received). These faxed pages are described in figures 3 and 4.

- 15 (71%) of the weekday faxes sent by pharmacy staff were for warfarin discharge plans.
- Most weekday faxes received came from drug companies and suppliers.

140 (88%) faxed pages contained patient identifiers

Pharmacy was not the intended recipient for 2 faxed pages

These contained patient meal plans and pathology requests

Figure 3: Number of faxed pages sent by type on weekdays (n=21)

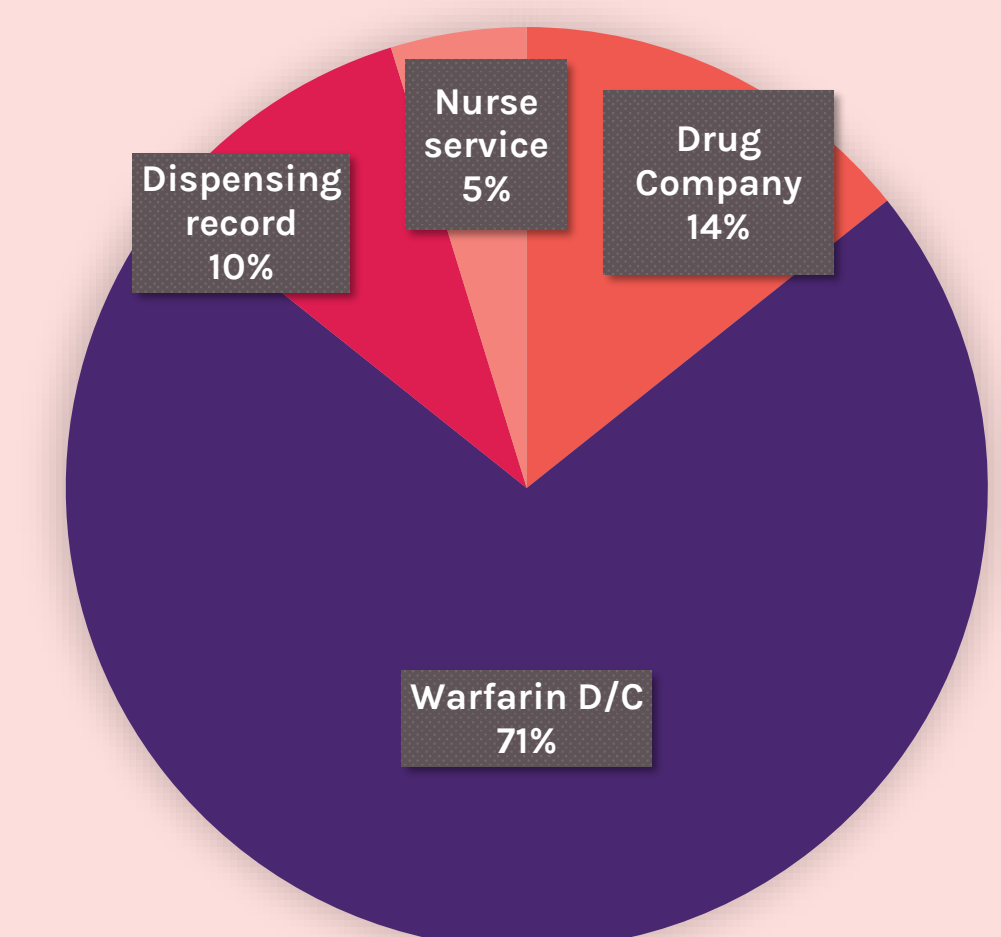
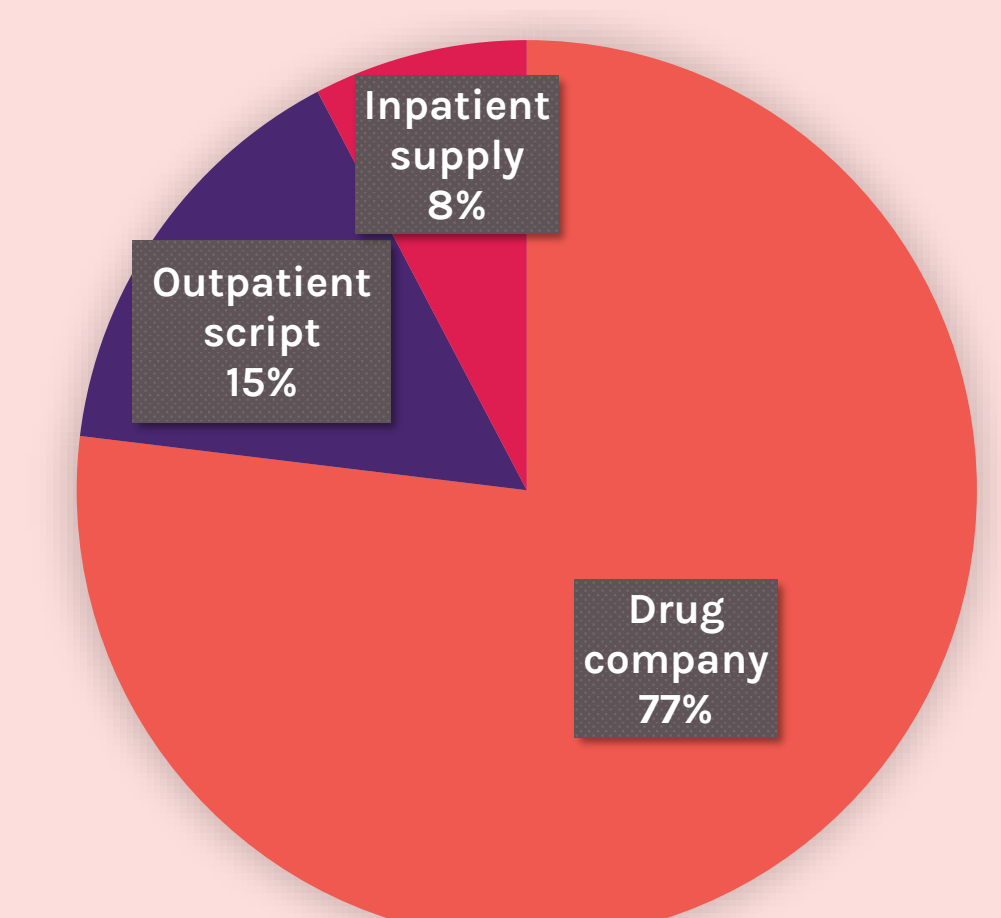


Figure 4: Number of faxed pages received by type on weekdays (n=13)



Discussion

Most faxed pages were inpatient supply requests sent to the main pharmacy dispensary on the weekend. Apart from these requests, only a small amount of communication involved fax machines. The pharmacy department has already moved towards the notion of ‘ditching the fax.’ However alternatives to faxed communication still need to be determined for some specific types of communication.

Reducing the number of inpatient supply requests from the wards on weekends could result in reduced workload and stress in the main dispensary and improve sustainable practices by reducing paper wastage. A potential solution could be to have pharmacists verify and supply inpatient medications directly from the ward, as occurs on weekdays. The capabilities of the electronic medical record system require further investigation, to understand whether ‘medication request’ functionality can be incorporated.

Most faxed pages included patient identifiers. Some staff noted that faxes may be more secure when sending patient sensitive data, such as dispensing records on a Prescription Record Form (PRF) to community pharmacies that do not have an official email address, (and instead use an email that includes ‘@gmail.com’ for example).

Furthermore, the community nursing service, Bolton Clarke, also requests that they receive faxes, suggesting that faxed communication remains prevalent in some settings. The reasons that warfarin discharge plans are faxed instead of emailed needs to be explored.

Drug companies and suppliers still communicate via fax. Subsequent studies could explore why drug companies are still using faxes instead of more modern forms of communication.

Two faxes were inappropriately received by the pharmacy department. This highlights one of the issues raised by Preining,⁵ who described how easily faxes can be sent to the wrong destination.

Limitations

- This was a single site study; findings cannot be generalized to other healthcare professionals or hospital settings. Additionally, the data collection period was only a single snapshot and may not be representative of all faxed communication.
- The effectiveness of faxed communication could not be evaluated, as recorded data pertained to the type and number of pages sent and not the quality of the faxed image received.

Conclusion

This study identified a small number of scenarios where an alternative communication process needs to be implemented prior to the department ceasing faxed communication. To avoid faxes for internal communication potential upgrades to the electronic medical record should be explored. Alternative forms of communication with external providers also require exploration. Uploading documents to My Health Record has electronic medical record vendor integration costs and requirements. Documents on My Health Record may not be accessible to health-professionals who are not Australian Health Professional Regulation Agency (AHPRA) registered. Secure platforms such as the Victorian Health Information Exchange may not be accessible to some private providers and secure email accounts may still result in information being sent to unintended recipients.

References

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