

# Medication collection from community hospitals: innovations to save a precious service



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## Background

In our region, medication delivery to four community hospitals within the health board for patient collection was under threat due to safety concerns. This valuable service was used regularly by patients under a number of specialities including dermatology, gastroenterology and learning disability teams, with 92 prescriptions being sent to one community hospital alone over 6 months. Without this facility, these patients would have to travel up to 100 miles, round trip, to Wrexham Maelor hospital (WMH) (*figure 1*); a costly, inconvenient journey, particularly undesirable in the current coronavirus crisis. We aimed to establish changes to save this vital service which is used by patients in Chirk, Deeside, Dolgellau and Mold (*figure 2*).

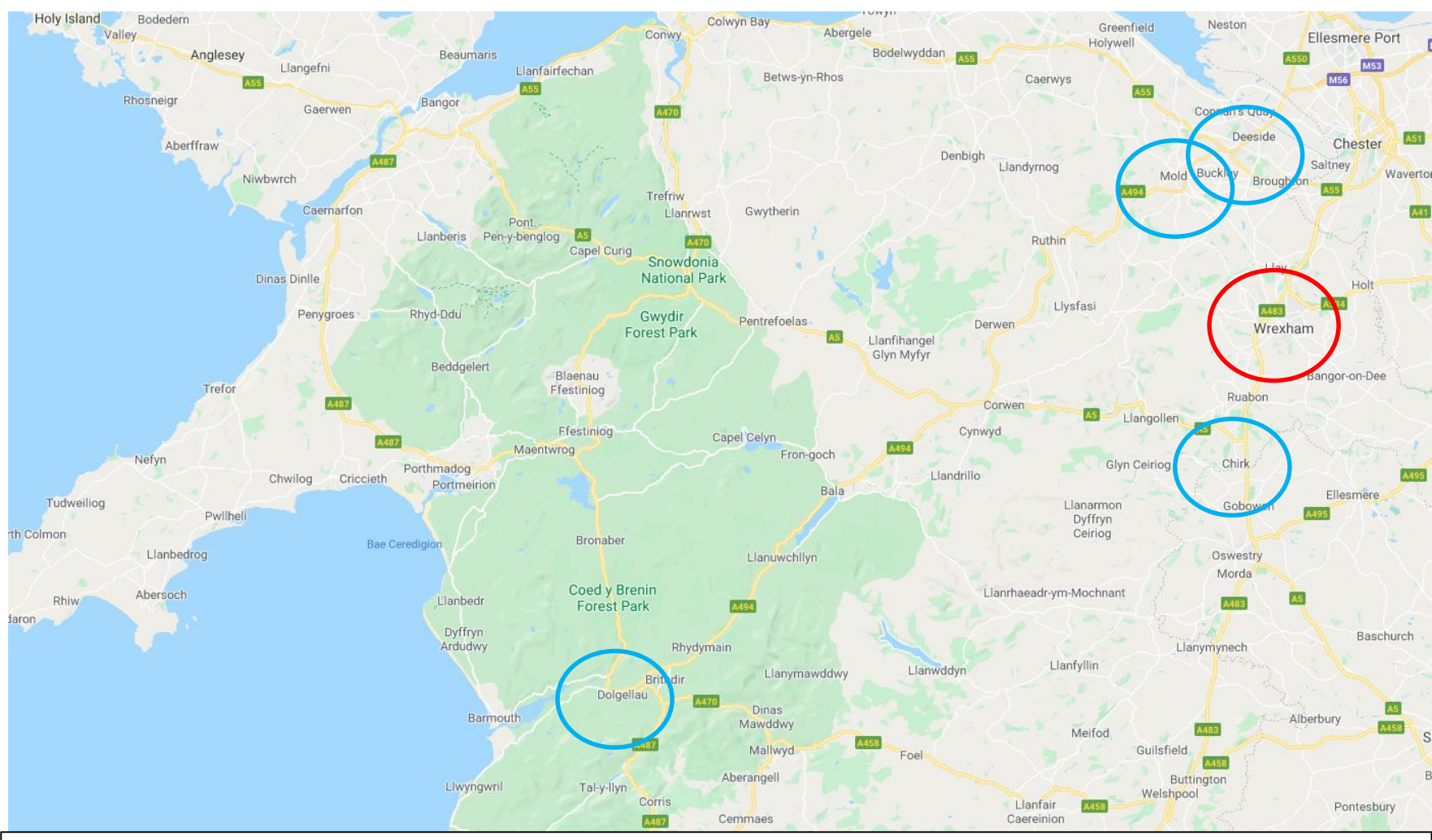


Figure 1 :WMH pharmacy (red) and community hospitals (blue)

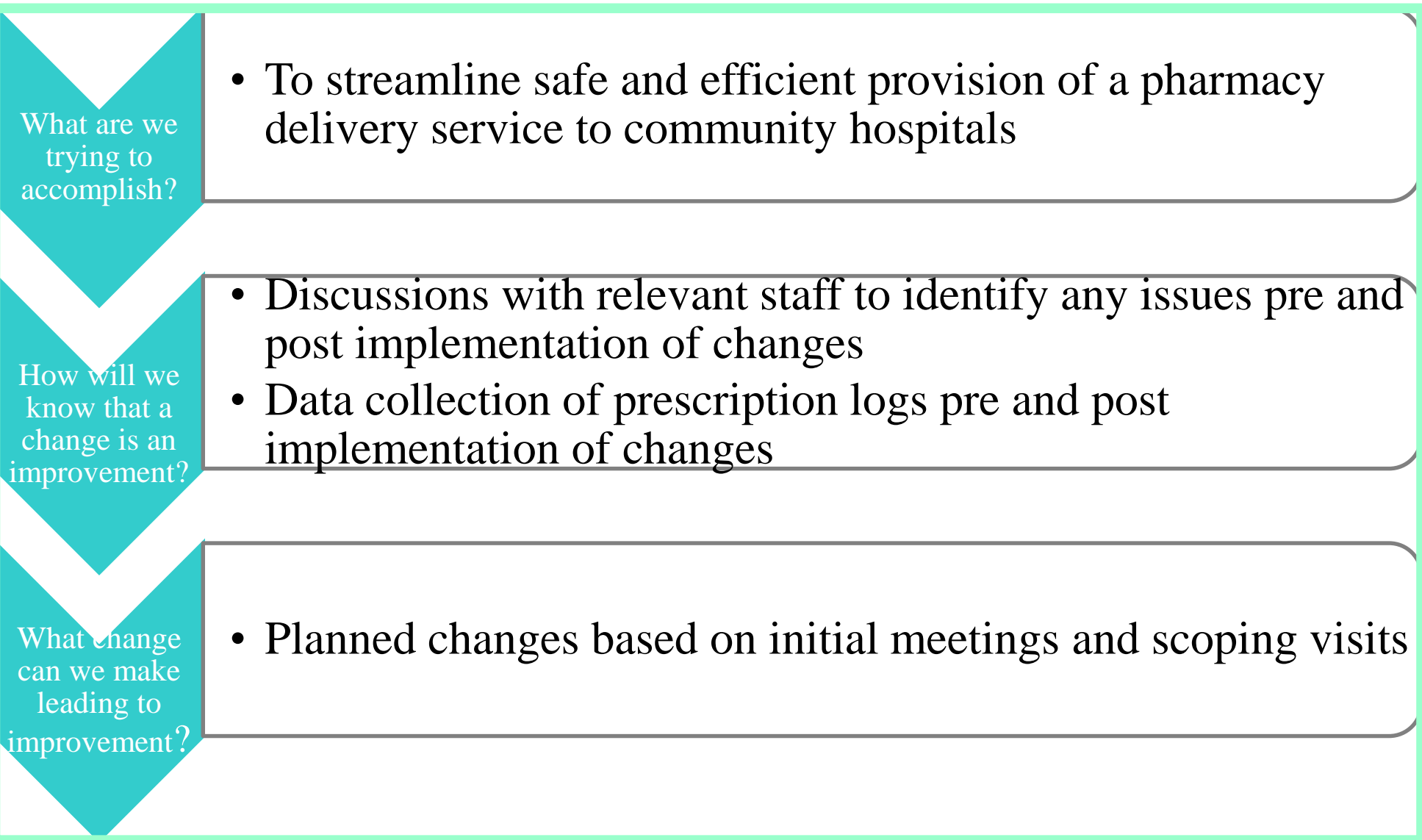


Figure 2: Model for Improvement

## Summary of Work

Initial meetings with both Wrexham Maelor pharmacy staff and community hospital staff raised a number of concerns with current practice (*figures 3 and 4*). One community hospital in Deeside was chosen as a pilot for the service improvement project and the exact steps in medication delivery to this hospital were isolated (*figure 5*). In this hospital, a logbook of medication deliveries was already in place and this was reviewed for the previous 6 months.

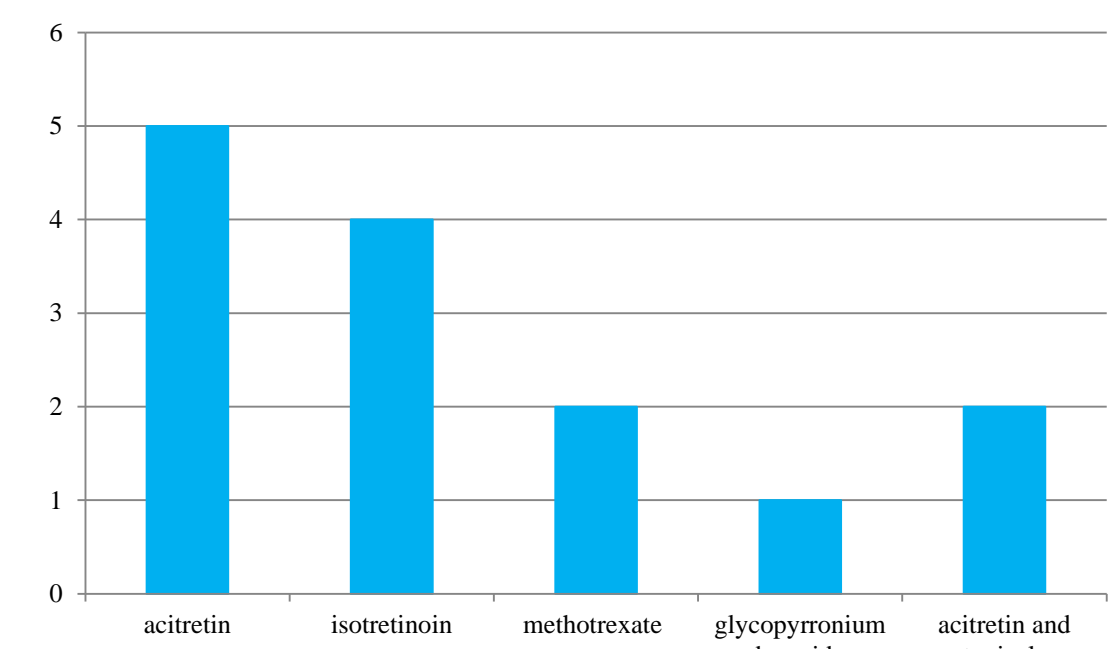


Figure 6: prescriptions not collected from Deeside community hospital

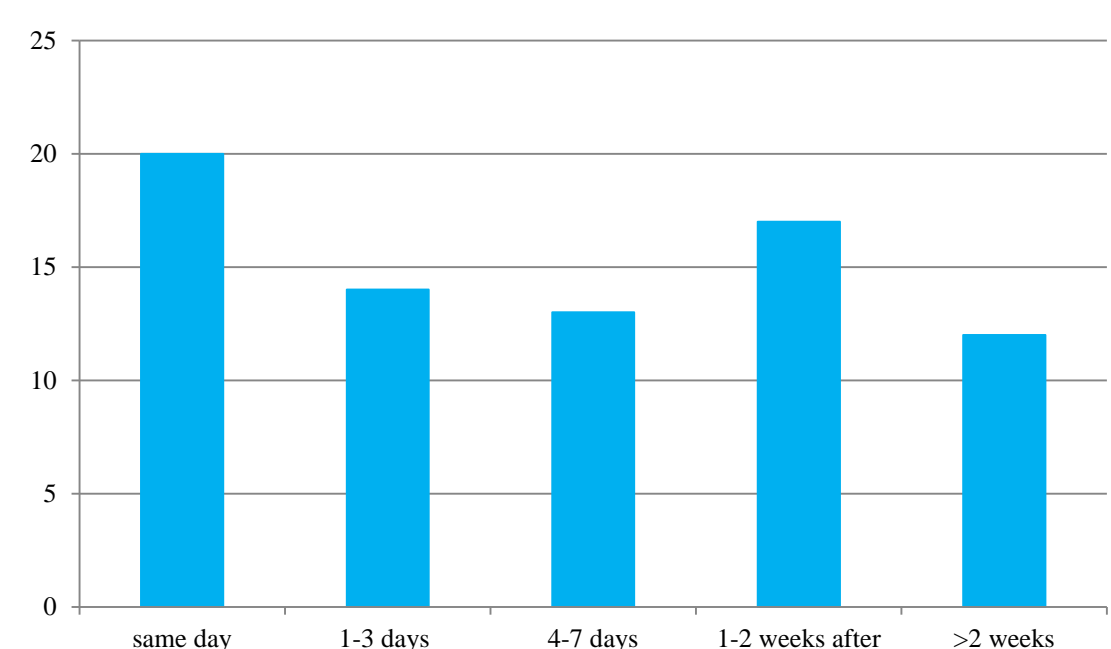


Figure 7: Time from medication arrival in Deeside to patient collection

During that time, of 92 prescriptions 15% were not collected at all (*figure 6*) including immunosuppressants and retinoids. 31% of medications were not collected for over one week (*figure 7*). This raised safety issues with teratogenic medications, e.g. isotretinoin which must be collected within 72 hours of a negative pregnancy test and was an additional unexpected issue with the service that needed addressing urgently. Collaboratively, we put in place a number of changes to make the service efficient, safe and auditable. (*figure 8*) To address this additional issue identified with delayed collection of isotretinoin in female patients and hence invalid pregnancy test, we suggested that WMH pharmacy issue the prescription based on fax rather than waiting for a paper copy and put a **red dot** on these medications so that they are issued urgently within a 24 hour working day window. The patients are now instructed to collect from Deeside within 3 days of prescription otherwise a repeat beta HCG blood test will need to be performed.

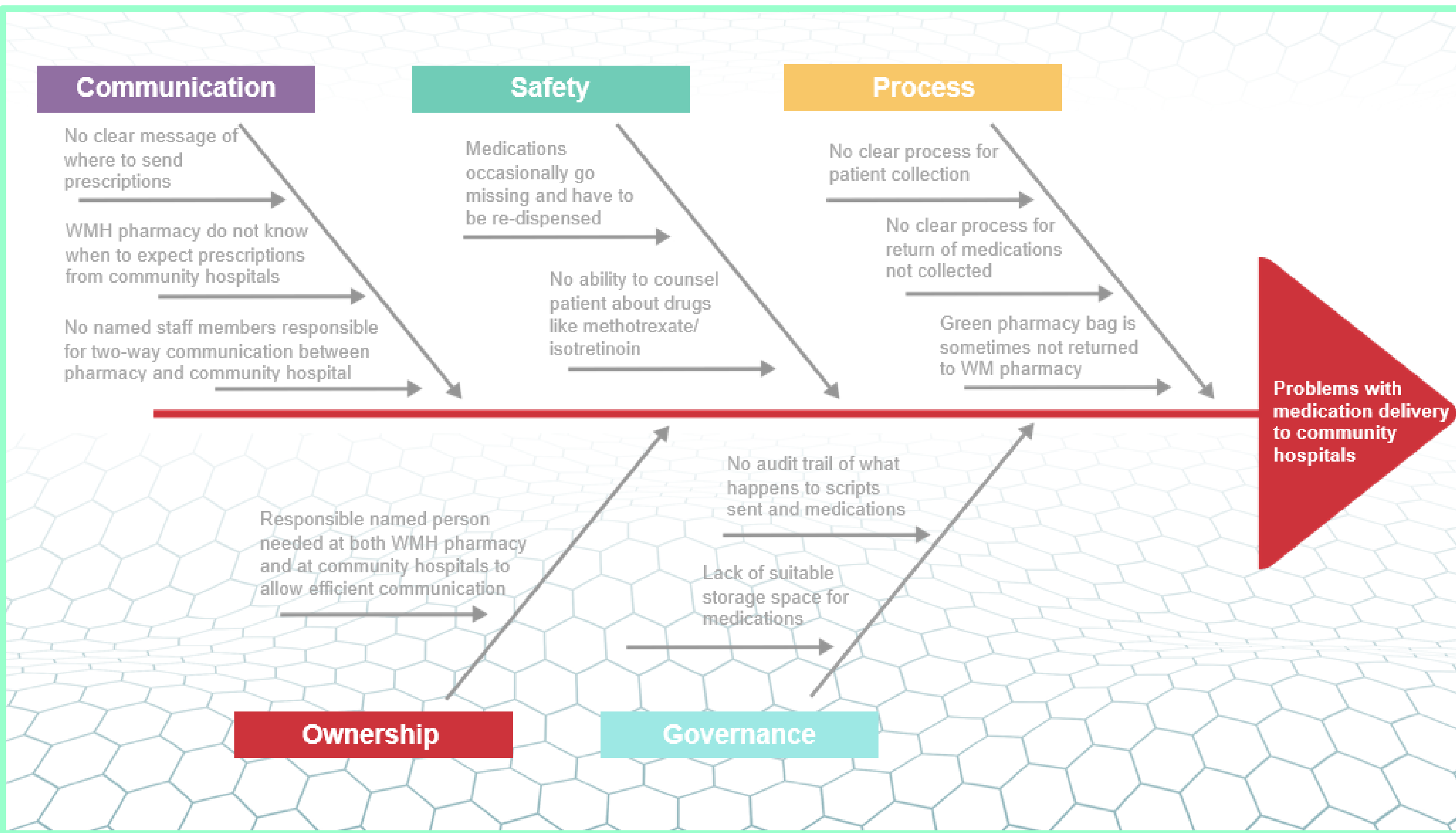


Figure 3: concerns raised by Wrexham Maelor pharmacy staff

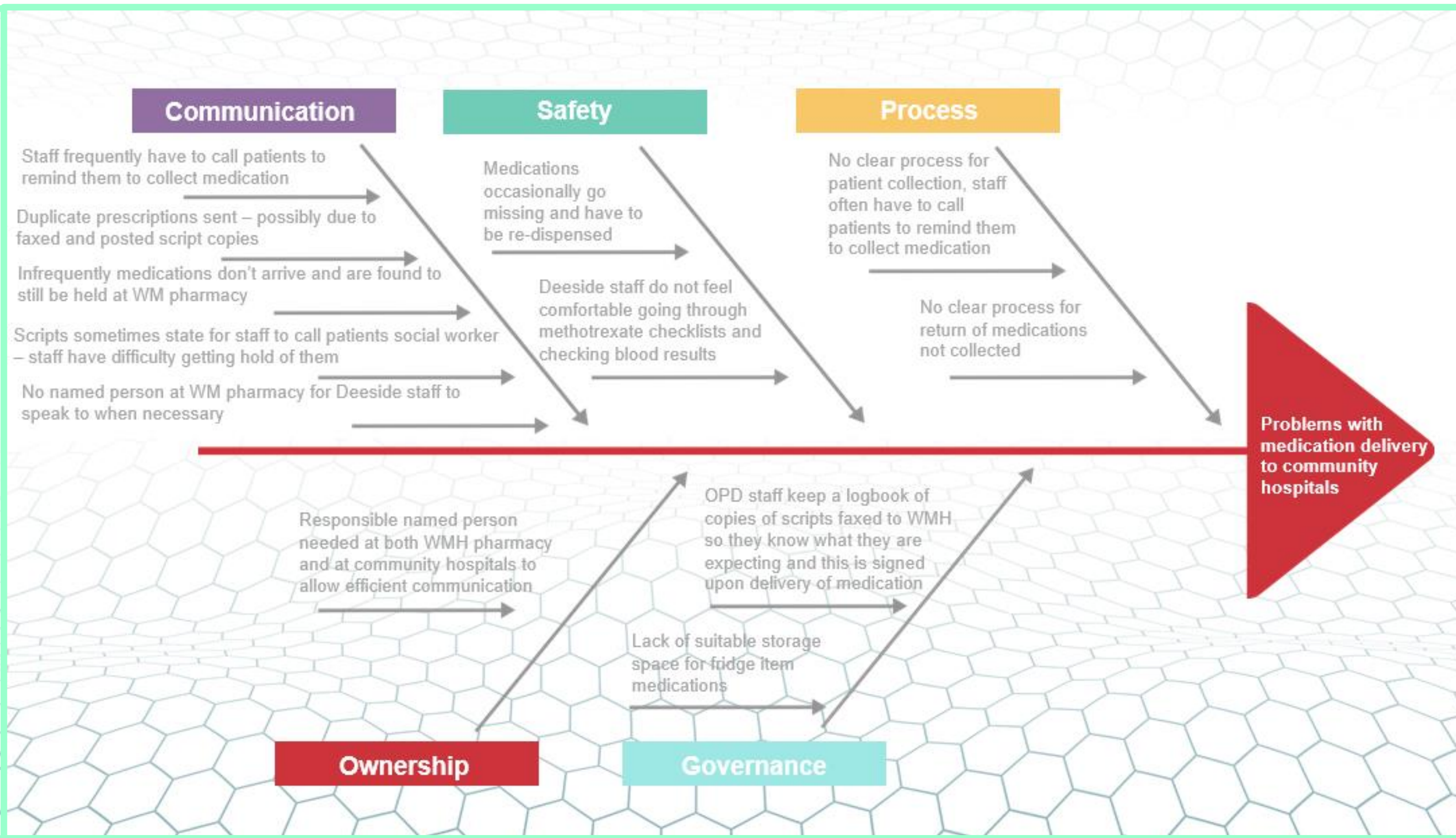


Figure 4: concerns raised by staff at one community hospital

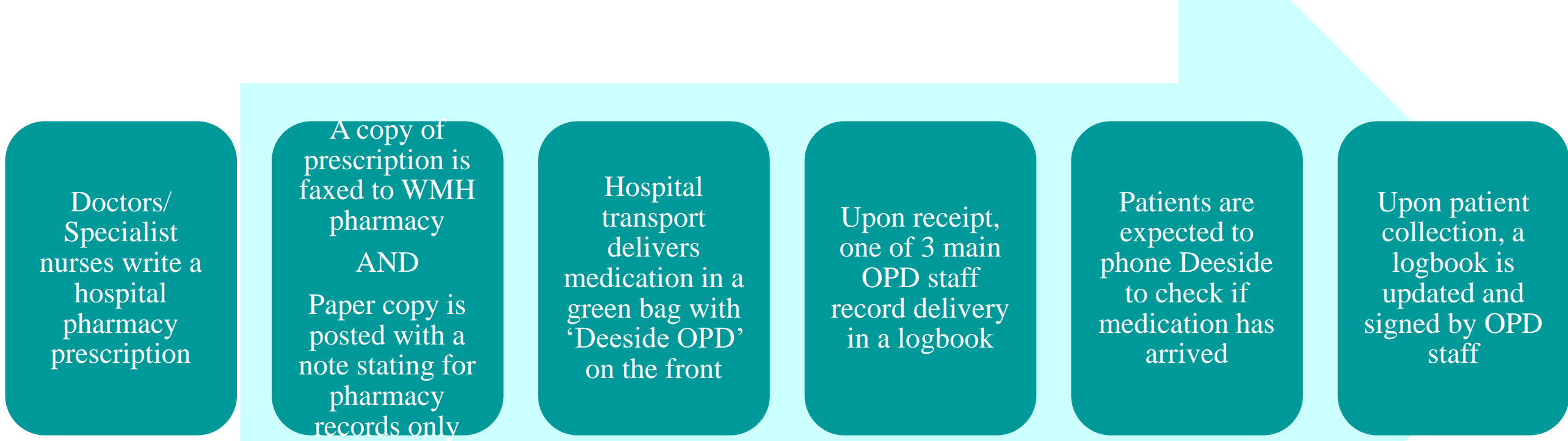


Figure 5: medication delivery procedure pre- changes

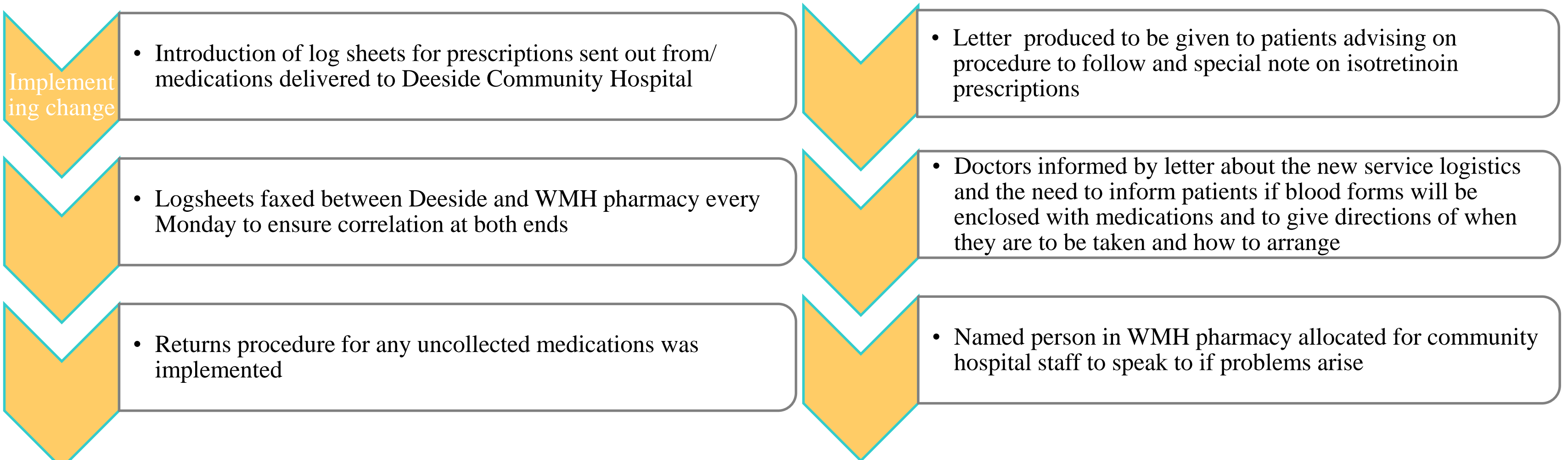


Figure 8: changes introduced to improve the medication delivery service

## Results

Logbook review for the 8 months following the implementation of changes showed that 92 prescriptions were delivered to Deeside community hospital. Of these, **98%** of the prescriptions were collected by patients. Of the two medications not collected, one was a duplicated medication accidentally sent from WMH pharmacy and so patient collection was not necessary. 82% of prescriptions were collected within one week and 26 prescriptions were collected by a patients relative/ carer compared to only 6 prescriptions in the 6 months pre- change implementation. This may be because the new patient letters advised about protocol for medication collection by a relative. This may in turn may have aided timely medication collection. Excluding the accidental duplicate, 19 out of 20 isotretinoin prescriptions were picked up within 3 days of prescription. One female patient attempted isotretinoin collection out of 72 hour timeframe so, following the new protocol, Beta-HCG was repeated, result checked with the doctor and medication was authorised to be issued. Therefore, following the implemented changes no patient was at risk of teratogenicity from this medication.

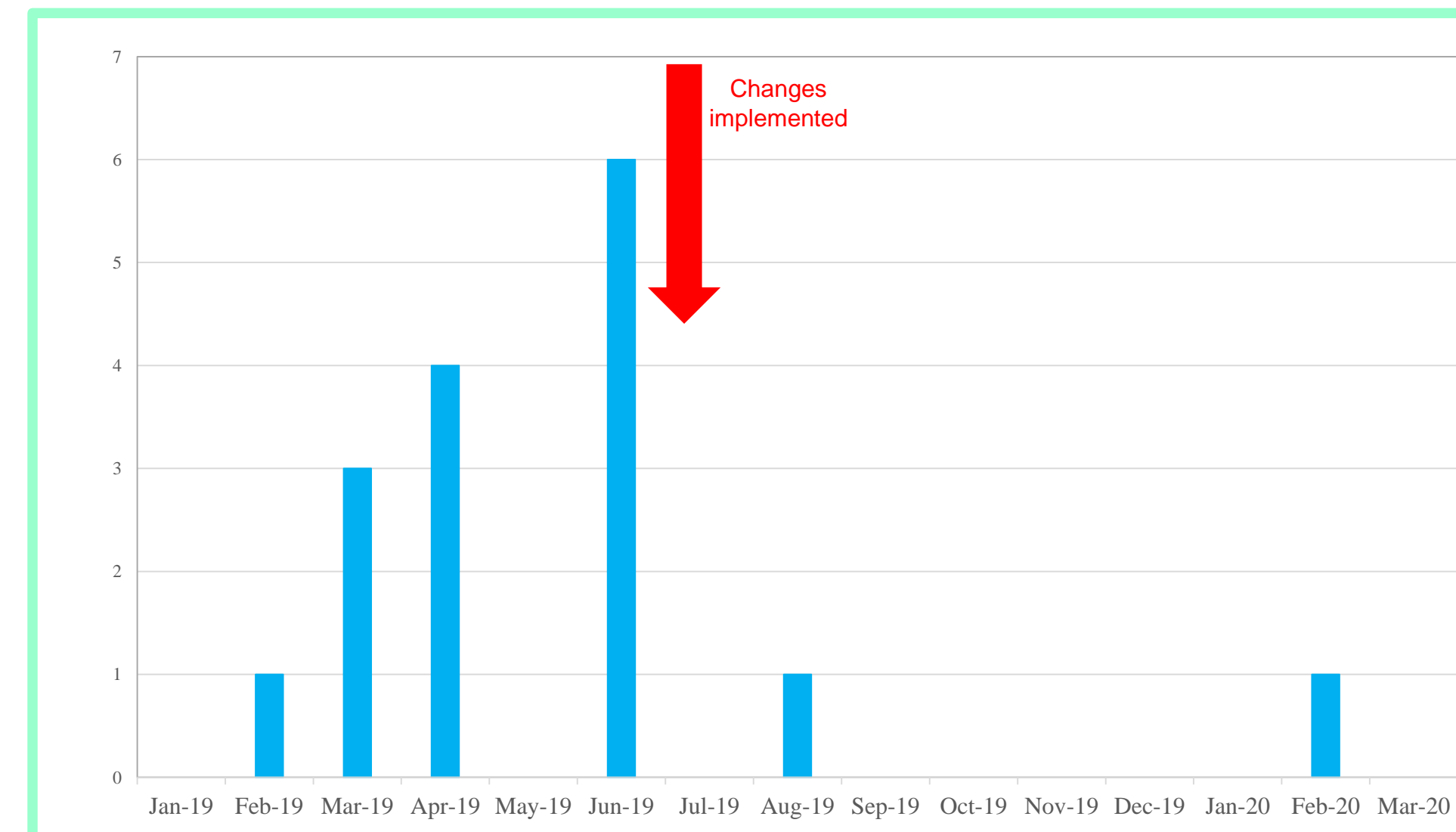


Figure 9: Medication not collected from Deeside community hospital

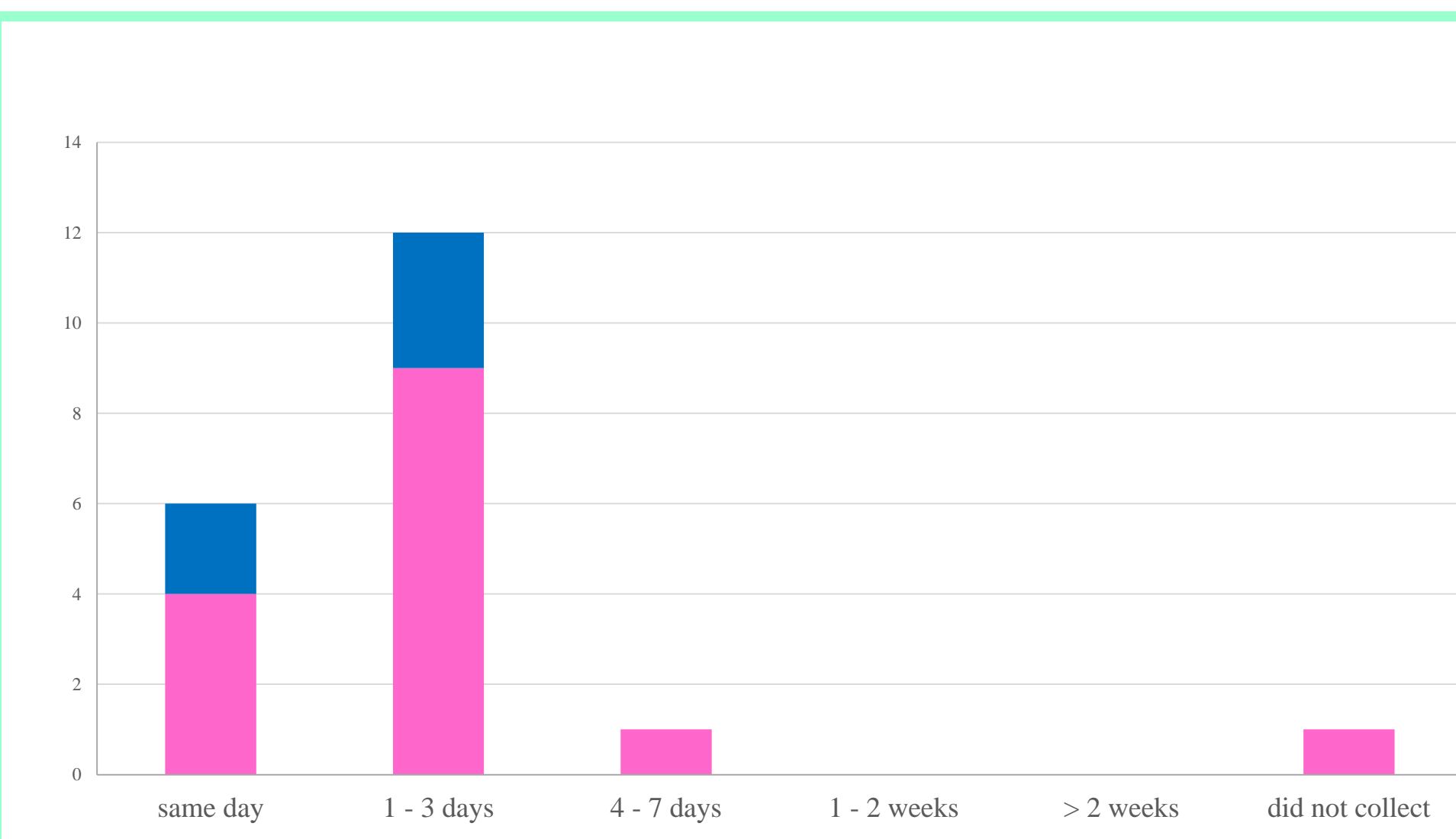


Figure 9: Time from isotretinoin arrival in Deeside to patient collection following implementation of changes

## Discussion and conclusion

Deeside pilot quality improvement has proven to be successful with clear protocols, communication channels between sites and fewer uncollected prescriptions. The safety issue regarding isotretinoin was incidentally picked up and has also been addressed successfully. In post change implementation interviews, staff both in pharmacy and in Deeside reported satisfaction with the procedures now in place. The innovations introduced ensure safe practice and survival of a precious service in our region. Similar procedures will be implemented in the other community hospitals. We would like to thank staff at Wrexham Maelor hospital pharmacy, and outpatient departments in Deeside, Mold, Dolgellau and Chirk community hospitals for their help with this service improvement project.