

# Transcription of supportive medication for inpatient chemotherapy by designated oncology pharmacists

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## Introduction

- Systemic Anticancer Treatments (SACT), previously referred to as chemotherapy, are prescribed alongside supportive medication, designed to alleviate SACT side-effects. These are prescribed on a specialist electronic prescribing system, ARIA.
- Following several incidents where patients supportive medication were omitted, the oncology pharmacy department at UHS implemented a safety measure in the verification process for inpatient SACT (IPSACT).
- Oncology ward pharmacists (OWPs) must ensure all supportive medications are prescribed on the inpatient prescribing system (JAC) before the SACT treatment is released to the ward. Current practice is for doctors to prescribe the supportive medication.
- Delays in prescribing supportive medication may delay SACT administration, which impacts on workflow, extends admissions and leads to a poor patient experience.

## Aim

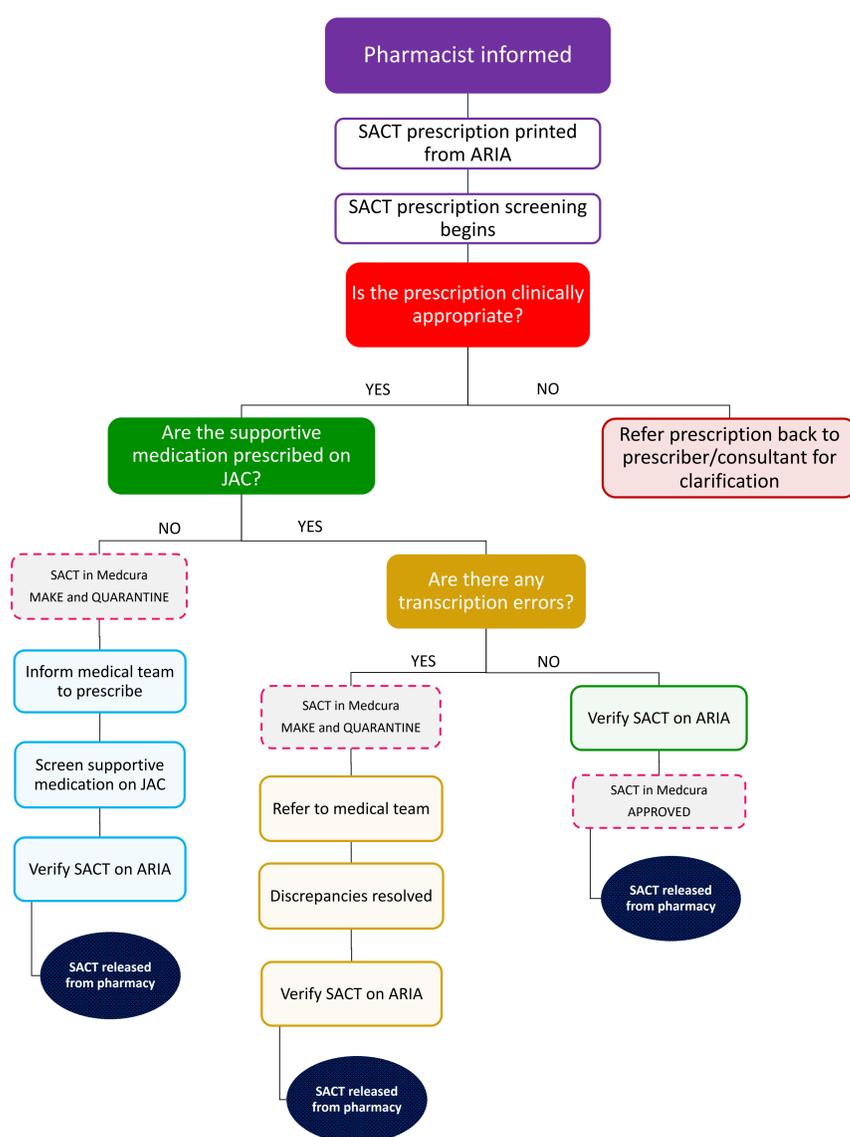
To evaluate whether the transcribing pharmacist role reduces the IPSACT delivery time and occurrence of transcribing errors.

## Methods

- Stage 1** (February-March 2019) involved assessing the efficiency of the current IPSACT process. The clinician-led process of prescribing supportive medication was mapped, and the time-taken for each step and transcribing errors were recorded by OWPs for four weeks using a piloted data collection form. Average timescales for each step were calculated and compared against the UHS guideline<sup>1</sup> targets.
- Stage 2** (June-July 2019) involved trained OWPs transcribing the supportive medication. Transcription and delivery-to-patient times and transcribing errors were again recorded using the same data collection form. Stage 1 (control period) and stage 2 (active period) mean delivery-to-patient and transcribing process times were compared using a Student's t-test and Welch t-test respectively. Transcribing error rates for each stage were compared using a Chi-square test.
- Ethical approval was not required for this service evaluation.

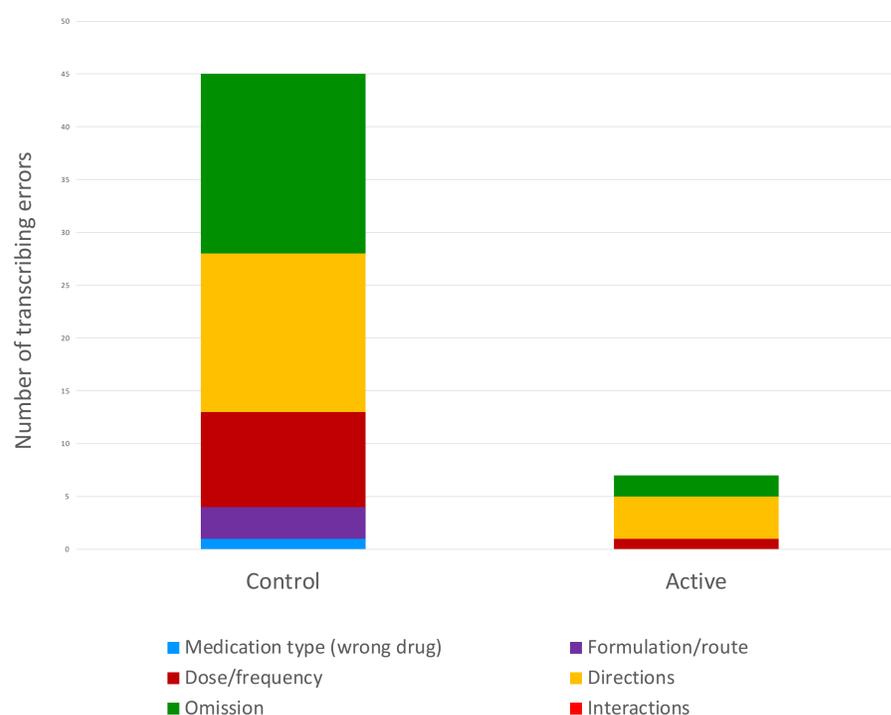
## Results

- Data from 22 patients in the control period and 27 patients in the active period were analysed. The assessment of current IPSACT processes showed there were aspects of the service that were inconsistent with the UHS guideline<sup>1</sup>.
- The mean IPSACT delivery time during the active period was 50.2 hours (range 24.7 to 75.7), a decrease of 23.7 hours (95% CI, -15.4 to 62.8) compared to the control period; however, this was not statistically significant  $p = 0.228$ .
- There was a notable decrease in screening process time, from 7.8 hours (range 4 to 11.6) in the control group to 3.5 hours (range 1.8 to 5.2) in the active period, a statistically significant difference of 4.3 hours (95% CI, 0.2 to 8.5),  $p = 0.039$ .
- The transcribing error rate during the active period was 4%, significantly lower than the 27% in the control period  $\chi^2 (1) = 36.46, p < 0.001$  (see figure 2).



**Figure 1.** IPSACT process flowchart. OWP is informed by doctors, nurses or chemotherapy co-ordinators if a patient is due to have IPSACT. The process is occasionally bypassed by the screening bench pharmacist, who may start the initial SACT screening and enter the treatment as MAKE AND QUARANTINE in Medcura (an aseptic compounding management system used at UHS).

Transcribing errors (Control vs Active)



**Figure 2.** Transcribing error types during control (Stage 1) and active (Stage 2) periods.

Disclaimer: Inpatient Systemic Anticancer Treatment (IPSACT) was previously referred to as Inpatient Chemotherapy (IPChx).

## Discussion and conclusion

We have demonstrated that involving OWPs in transcribing supportive medication significantly reduces the occurrence of transcribing errors, and there was a trend towards a reduction in IPSACT delivery time. Nonetheless, inconsistencies between current practice and UHS guideline<sup>1</sup> raised important issues that may imply a further evaluation of the whole IPSACT process is required. The delay in the transcription of supportive treatment is certainly not the only contributor to delays in SACT administration. This study is limited by the small number of IPSACT reviewed and potential bias in the reported transcription times by OWPs. Consequently, further research is required to establish if additional interventions are required to improve oncology patients waiting time.

## References

- University Hospital Southampton NHS Foundation Trust. *Elective chemotherapy patient admission*. Internal UHS guideline: unpublished; 2016.

