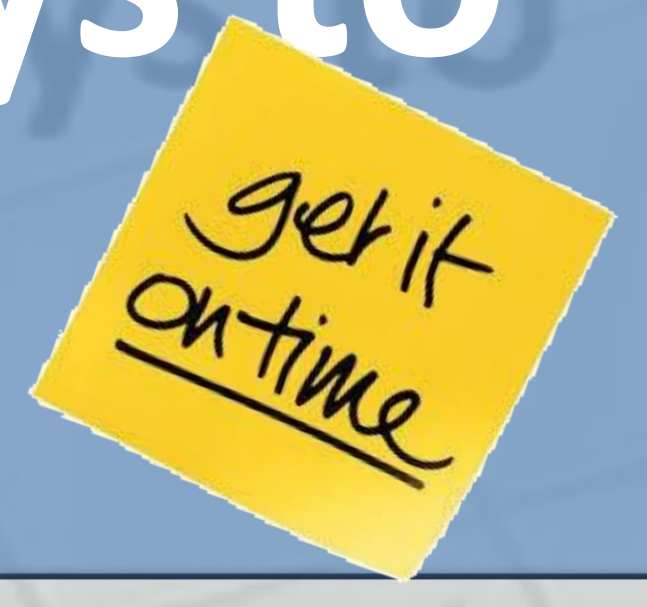


# A Collaborative approach in utilising existing NHS digital systems in novel ways to improve timely administration of Parkinson's Medication in hospital.



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Across the UK, people with Parkinson's are not getting their medication on time within our hospitals, leading to extended hospital stays and adverse effects. The 2022 Parkinson's UK audit found that: “only 42% of those admitted to hospital always got their Parkinson's medication at the right time. People with Parkinson's face 28,860 excess bed days in hospital every year in England alone – this costs the NHS £10m a year.” NHS Ayrshire and Arran (NHSAA) has had an ongoing project for some 10 years, leading to improvement in timely administration of Parkinson's medications from 41.27% in 2014 to 64.96% in 2023.

Collaboration between specialist nursing, pharmacy and digital services within NHSAA resulted in the development of several novel uses of existing digital clinical systems alongside delivery of targeted and varied staff education. Principal among the systems utilised in this work was the NHSAA Hospital Electronic Prescribing and Medicines Administration system (HEPMA) with its comprehensive records of inpatient prescribing and medicines administration. Throughout, the patient has remained at the heart of all of our developments, with the aim to improve their hospital experience, reduce adverse effects and optimise their Parkinson's control.

The work, over the course of several years can be split into 3 phases with the evolving capabilities of the teams and systems involved:

## Phase 1: Audit (2015 onwards)

HEPMA administration records gave a detailed overview of the timeliness of administration of Parkinson's medicines to the specialist Parkinson's team. This enables the team to manage, monitor and audit Parkinson's patients' medications on a daily, weekly and monthly basis across all areas (including remote sites).

This information was used to effect timely and appropriate clinical interventions and delivery of targeted training of staff within poorly performing areas. A follow up evaluation of the impact of this training was carried out to see whether refresher training might be required.

Paula Hewat, Lead PD nurse NHSAA “The daily report has allowed for more collaborative communication between PD team and wards, to ensure better patient experience”

## Phase 2: Real time alerting (2018 onwards)

Following further work, the development of a link between NHSAA digital systems allowed for the creation of a tulip visual prompt next to the patients name on the ward electronic whiteboards. This provides nursing staff with dynamic prompts on when Parkinson's medicines are due for administration.

Introduction of real time visual prompts alongside existing surveillance and training showed a positive sustained impact on the timeliness of administration of Parkinson's medication.



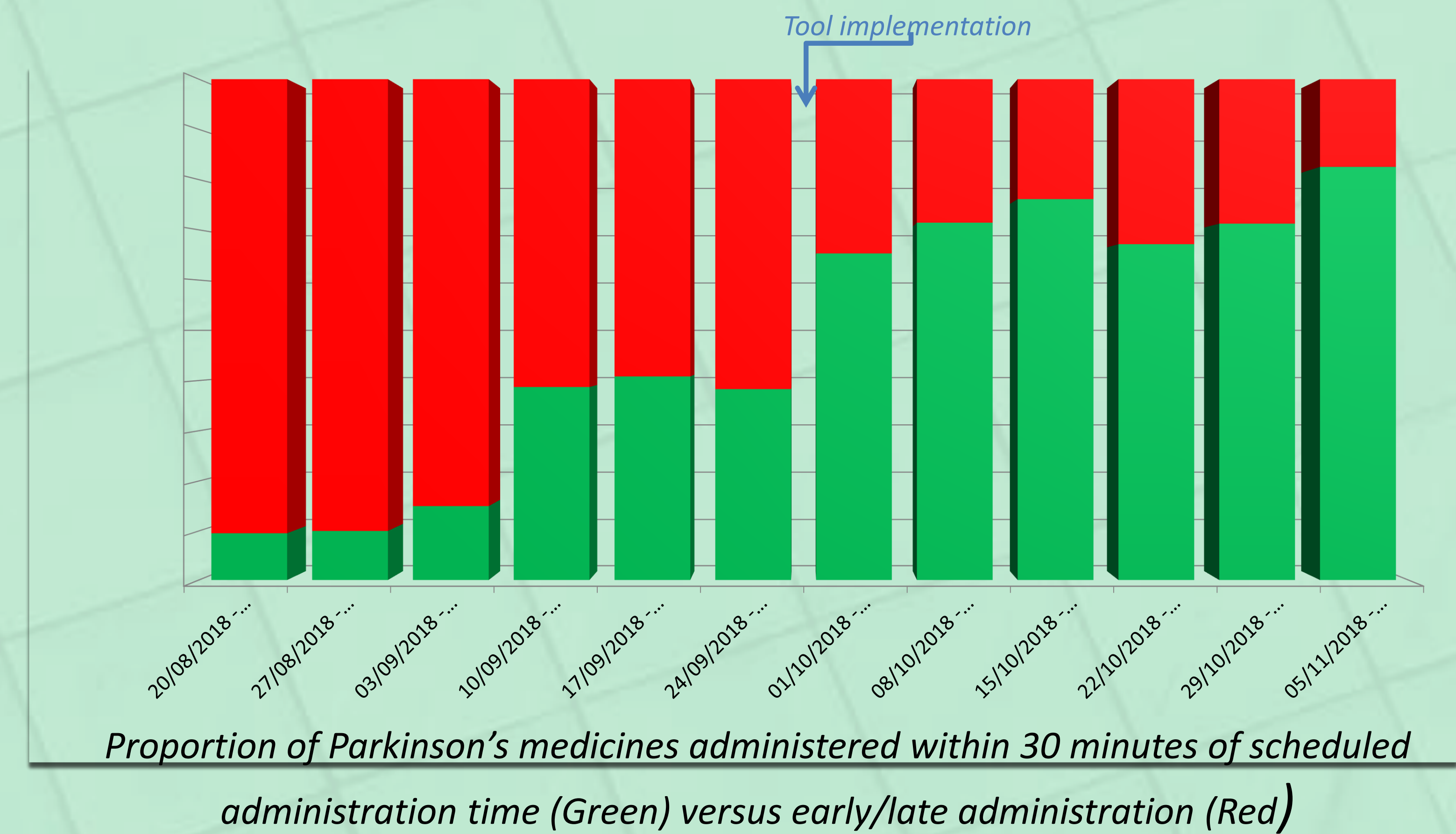
Patient prescribed Parkinson's medication (not currently due for administration).



Patient due for administration of Parkinson's medication



Patient overdue for administration of Parkinson's medication

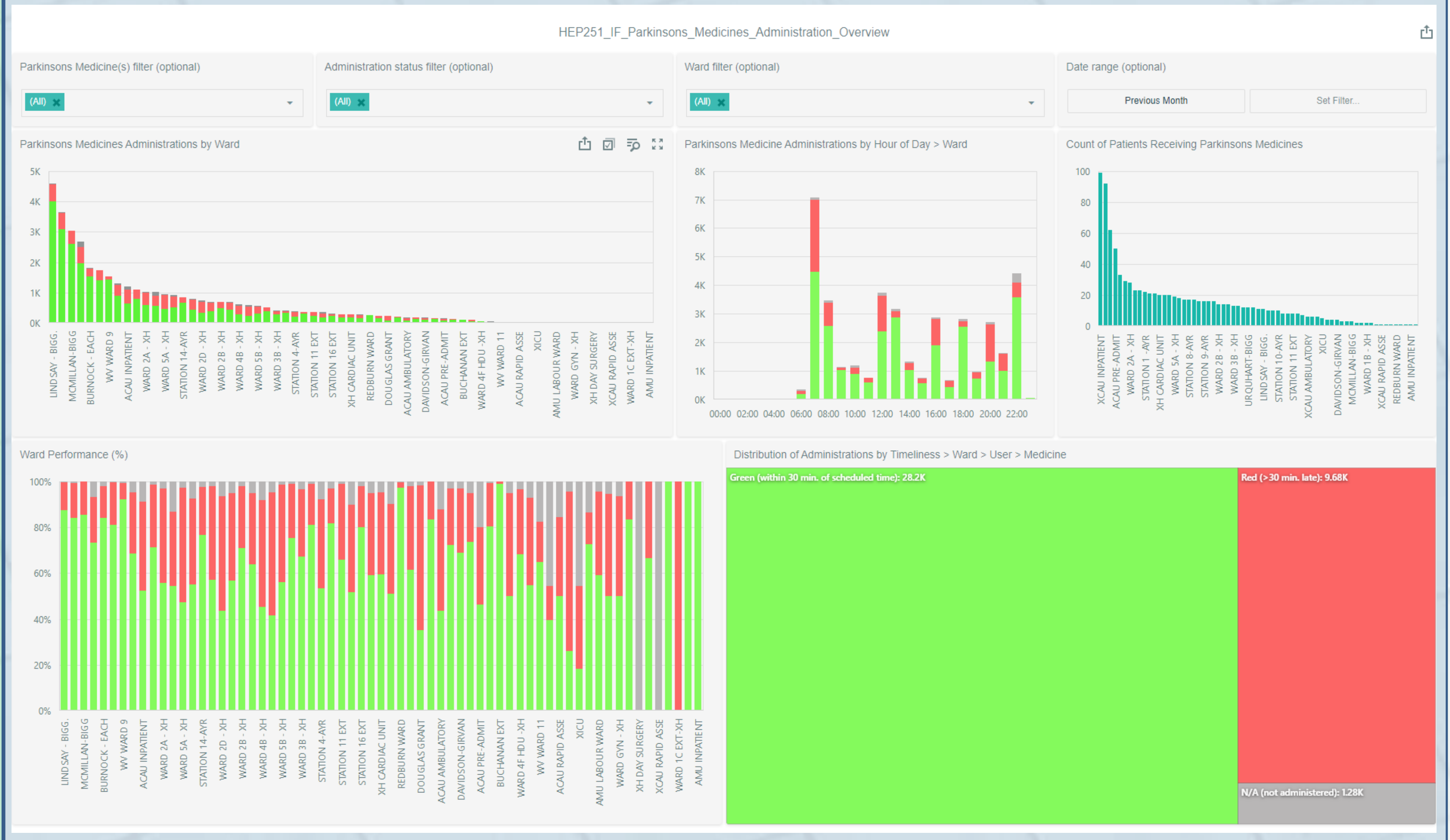


## Phase 3: Parkinson's medicines administration dashboard (2022 onwards)

Advances in local digital systems have opened up drug administration data to nursing management, allowing them to review their own performance.

Wider access to this information will empower nursing staff to take direct ownership and oversight of the administration of Parkinson's medicines.

The dashboard enables access to accurate audit data quickly in a way that has not been available before.



The intelligent use of digital systems and the data they hold, combined with targeted intervention and training of ward staff by specialist clinical staff has significantly improved the timely administration of Parkinson's medicines within NHS Ayrshire & Arran hospitals. Training is flexible to include on the wards training but we also provide a twice yearly all day event for 250 staff per year. Perhaps training should be mandatory on time critical medication.

These developments were possible due to the implementation of HEPMA, and its continuing roll out across NHS Scotland, we hope that this current work (or future variations) will drive further improvement in the timely administration of Parkinson's medicines to inpatients across NHS Scotland and the UK. “Craig” a patient with Parkinson's, “Local group members have spoken of not getting medication on time in hospital, I now feel more confident knowing this is in place.”