Remote monitoring differences in Hospital at Home programmes for heart failure and chronic obstructive pulmonary disease.

Authors.

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Introduction.

NHS England is expanding hospital at home (HaH) chronic disease programmes supported by remote patient monitoring, including patients with chronic obstructive pulmonary disease (COPD) and heart failure (HF). Characterising demographics, length of stay, and alerting patterns in these groups are key to effective resource allocation.

Methods.

De-identified data from six NHS Trusts were aggregated from March 2021 to August 2023 to select patients receiving hospital at home care supported by the Current Health (CH) platform for COPD (n=129) or HF (n=83), and prescribed full-time wear of the CE-marked wearable vital signs monitor.

Results.

The overall HaH group was 50.2% female (n=106) and predominantly described their ethnicity as white (95.8%).

Patients with COPD were 56.3% female and younger (mean age 70.8 years, SD 10.0) than HF, who were majority male (59.0%) and older (mean age 75.0 years, SD 12.1). Patients with COPD were monitored in the CH platform for longer (median 14 days, IQR 7-17) compared to HF (median 11 days, IQR 7-17).

Similar clinical alarms were set for both groups. However, half of HF programmes included weight gain alarms while half of COPD programmes included skin temperature alarms.

Clinical alarm rates were higher in HF, median 2.4/day (IQR 0.6-4.3) vs. COPD, median 1.1/day (IQR 0.5-2.6) (Figure 1).

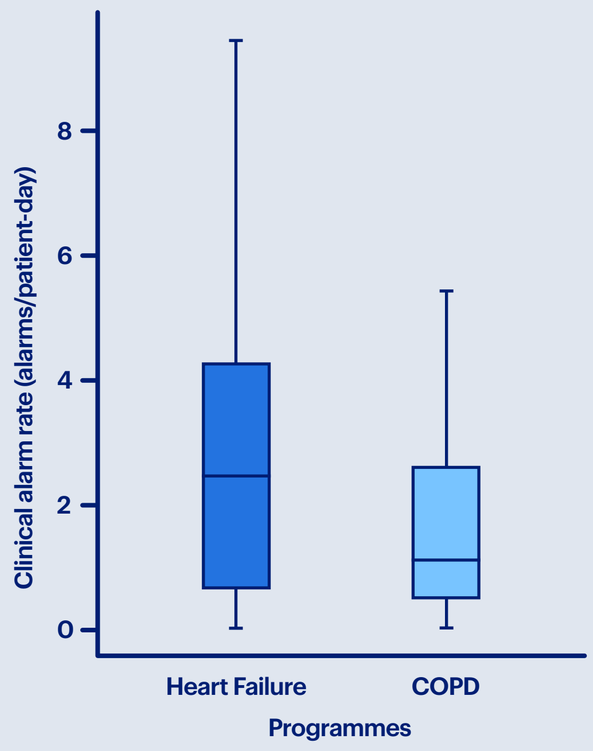

Figure 1. Median and interquartile range clinical alarm rate per patient-day in HF and COPD programmes.

Discussion.

In this sample, patients with COPD spent more days on the CH platform while patients with HF were older and triggered more alarms.

As virtual wards expand beyond respiratory conditions, HF programmes may require a higher staff to patient ratio than COPD programmes to address alarms.

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