

Physical demands from 51,8 points+38,06 to 78,33+31,06 (p=0.0093)

Mental demands from 73,26 points+32,46 to 85,6+22,51 (p=0.0694)

Social demands from 77,77 points+31,57 to 91,66 + 19,24 (p=0.054)

Global score from from 68,34 + 32,68 to 84,66+ 4,46 (p=0.026)

**Conclusion and Relevance** This study underscores a significant improvement in work performance among patients utilising biologic drugs or JAKi therapies. This positive outcome serves to reinforce the value and cost-effectiveness of these treatments, thereby mitigating their substantial impact on healthcare budgets. The findings hold relevance for healthcare professionals and policymakers alike, guiding them toward more informed decisions regarding IMIDs management.

## REFERENCES AND/OR ACKNOWLEDGEMENTS

**Conflict of Interest** No conflict of interest.

### 6ER-007 REDUCING OUR MEDICINES' CARBON FOOTPRINT BY TACKLING NITROUS OXIDE WASTE

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**Background and Importance** There is a focus on the NHS becoming greener underpinned by the NHS Green Plan and closing the gap to net zero. One of the biggest contributors to the NHS carbon footprint is medicines, accounting for 25%. Nitrous oxide confers the largest carbon footprint of the anaesthetic gases within the acute sector accounting for at least 75% of the total footprint.

It is crucial we work to reduce our carbon footprint – the climate crisis is a health crisis, and it is our duty as health care professionals to act to protect our patients and planet.

**Aim and Objectives** Our project aimed to tackle the largest cause of anaesthetic emissions, nitrous oxide. Nitrous oxide is a bigger problem than most gases due to frequency of use and reliance in dental and paediatric procedures. Our goal was to reduce our carbon footprint of these gases by tackling waste.

**Material and Methods** We carried out a clinical audit across all clinical areas that are served by piped nitrous oxide, 1605 litres were used weekly on average (83,460 litres per year). We were able to compare our clinical audit data with the total gas bought into the trust (915,000 litres per year). Figure 2 shows clinical use of 5%, and therefore 95% waste.

**Results** In establishing a solution to the problem we knew the main source of waste of nitrous oxide was from the piped supply. Therefore, our plan was to completely decommission areas that had zero clinical usage and convert anaesthetic gas machines to take portable cylinders in all other areas. Converting to smaller, portable cylinders we could provide a leaner supply with no change in patient care or experience.

**Conclusion and Relevance** From switching to a leaner supply of medical gases, we have saved over 250 tonnes of CO<sub>2</sub>e since beginning our project, as well as over £20,000. The project continues with aims to reduce to less than 100 tonnes of CO<sub>2</sub> emissions per year from our nitrous oxide footprint.

## REFERENCES AND/OR ACKNOWLEDGEMENTS

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- Nitrous oxide could be harming people as much as the planet – The Pharmaceutical Journal (pharmaceutical-journal.com)
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**Conflict of Interest** No conflict of interest.

### 6ER-008 QUALITY, GAPS AND OPPORTUNITIES IN SMARTPHONE APPLICATIONS FOR PULMONARY HYPERTENSION: AN EVALUATION FROM HOSPITAL PHARMACISTS' AND PATIENTS' PERSPECTIVES

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**Background and Importance** Hospital pharmacists and patients face challenges in identifying high-quality, functional smartphone applications (apps) for aiding pulmonary hypertension (PH) management. A thorough, user-centred evaluation is required due to these app's role in medication management and patient education.

**Aim and Objectives** To evaluate the quality and utility of PH-focused apps from the perspectives of hospital pharmacists and patients.

**Material and Methods** An observational study was conducted on freely available apps intended for PH patients and healthcare providers on Android and iOS platforms. Variables such as platform (Android/iOS), last update date, intended purpose and stakeholder involvement were collected. The Mobile Application Rating Scale (MARS) framework was used for quality assessment, and Mann-Whitney U tests were applied to compare mean MARS scores based on specific variables (healthcare professional participation, pharmaceutical industry involvement, or target population).

**Results** Our evaluation encompassed 20 PH-specific applications across two platforms: Android (9), iOS (7), and both (4). Of these, 11 targeted healthcare professionals and 9 were designed for patients or general population use. Eleven apps were updated within the past year.

Only 10 apps were developed with healthcare professional input, and none involved PH patients. Five applications were pharmaceutical-industry-developed, and 8 benefited from pharmaceutical funding.

Despite a universal emphasis on the few apps identified on disseminating PH general information, none offered features for patient self-management like adverse effect monitoring or medication tracking. Likewise, they lacked functionalities crucial for hospital pharmacists, such as drug interaction checks or allowing direct communication with patients.

Quality assessment via the MARS scale yielded a median score of 3.4 (1.8–3.9), indicating acceptable quality. Analyses found no significant impact of healthcare professional participation, pharmaceutical industry involvement, or target population on the app's quality.

**Conclusion and Relevance** While the few existing PH apps offer educational features for patients and healthcare providers of acceptable quality, they neglect the specialised needs of hospital pharmacists and PH patients. Our findings accentuate the imperative for focused, collaborative development