

# Nicotine replacement therapy for COVID-19 patients: A quality improvement project to reduce nosocomial COVID-19 infection

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## Introduction

- At the beginning of the COVID-19 pandemic there was much publicity and anxiety around nosocomial COVID-19 infections. <sup>1</sup> One issue that we believe could be tackled is that of patient-patient spread whilst smoking outside the hospital.
- With the recent introduction of effective vaccines there are more patients with 'incidental' COVID-19 who are not requiring oxygen and therefore often able to leave the ward independently.
- Nicotine Replacement Therapy (NRT) has been shown to increase the chance of smoking cessation as well as treat nicotine addiction. <sup>2</sup> This may therefore encourage patients to remain isolated on inpatient wards. We suspected that NRT prescribing levels would be low and set out to improve this.

## Materials and methods

- The audit office at the trust compiled a list of patients between March-April 2020 with COVID-19 and who were current smokers. Patients on Intensive Care Units were excluded. Inpatient documentation and prescriptions were reviewed to see if NRT was discussed or prescribed.
- A poster was created for the Doctors' office of the two COVID-19 wards in November 2021 highlighting the importance of NRT prescription and an order set that was available on the e-prescription system.
- In January 2022, a further review was undertaken. Initially this was planned to look at patients over a 2-month period, but this was completed early due to high numbers of patients.

## References

1. Wang D, Hu B, Hu C, et al. Clinical Characteristics of 138 Hospitalized Patients With 2019 Novel Coronavirus–Infected Pneumonia in Wuhan, China. JAMA. 2020;323(11):1061.
2. Hartmann-Boyce J, Chepkin SC, Ye W, Bullen C, Lancaster T. Nicotine replacement therapy versus control for smoking cessation. Cochrane Database Syst Rev. 2018;5(5):CD000146.

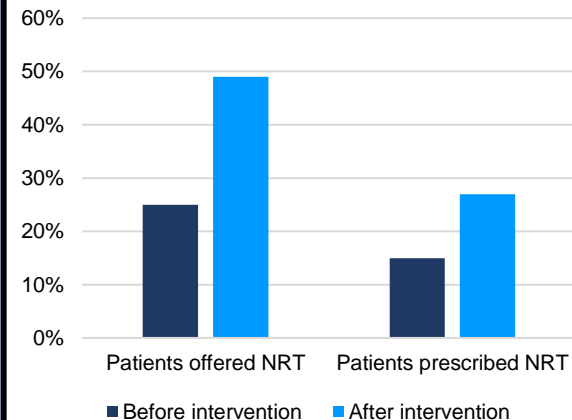
## Acknowledgements

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## Results and discussion

- The initial review comprised of 20 patients and the subsequent review comprised of 41 patients – all of whom were inpatients with COVID-19 and current smokers.
- The results showed that following the intervention, rates of prescribing NRT increased from 15% to 27%. There was also an increase in documentation about offering NRT– from 25% to 49%. These results show a modest increase although overall disappointing levels of NRT prescribing.
- These results reveal high levels of patients declining NRT prescription – the reason for this is not clear.
- The second review revealed an increased proportion of patients with 'incidental' COVID-19 such as patients with fractures, overdoses or falls. These patients had low levels of NRT discussion and prescribing. The intervention, when designed, had not targeted doctors from non-medical specialties. Many of these patients were more mobile than patients with symptomatic COVID-19 and therefore these patients, in particular, should have NRT prescribed.
- Another difficulty encountered in this project was the high turnover of medical doctors on COVID-19 wards due to staffing often relying on locum doctors. Levels of NRT prescription varied greatly depending on which doctor had seen the patient.

## Results



## Conclusion

- Preventing nosocomial infections remains an issue for UK hospitals and increasing NRT prescription rates for COVID-19 patients could be a simple and low-cost initiative.
- A small intervention has led to some increase in NRT prescriptions by the medical team at our trust.
- The rise of 'incidental' COVID-19 infection has led to an increase in numbers of COVID-19 patients being seen by non-medical doctors and as such further intervention and education for non-medical teams is required.