

## EDITORIAL

# Establishing a healthcare worker screening programme for COVID-19

Since 10 March 2020, the Newcastle upon Tyne Hospitals NHS Foundation Trust has been screening symptomatic healthcare workers (HCWs) for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Our decision was based on the following rationale: (i) to maintain the health and welfare of our staff, (ii) to enable rapid identification and isolation of infected HCWs to protect patients and the wider community and (iii) to inform risk assessments and decision-making in relation to return to work of staff testing negative for SARS-CoV-2 during this challenging period for the National Health Service (NHS).

We rapidly adapted a pathway previously implemented for community testing for SARS-CoV-2 during the 'containment' phase of the UK response to COVID-19. In our model, staff (mainly hospital employees but also local general practitioners and their staff) contacted occupational health via a single email account. There was no formal external promotion of the service; however, internal Trust communications were delivered by email. All contacts were by email and a contemporaneous record was made within the existing occupational health database. This is separate from the usual Trust patient records system.

During the first stage from 13 to 16 March 2020, an initial review of the self-declared symptoms was conducted by consultant occupational physicians and staff with relevant symptoms (new onset continuous cough and/or fever) were referred by telephone to the patient services coordinator.

Initially front-line staff, as defined by those groups with patient-facing roles from the seasonal influenza vaccination campaign, were swabbed. We did not apply any timing-related criteria. Appointments for swabs were arranged as soon as possible following contact with occupational health and were not deferred to 3 days following onset of symptoms. Combined nose and throat swabs were taken by nurses deployed from general medical wards for SARS-CoV-2 reverse-transcriptase polymerase chain reaction (RT-PCR) and written advice about self-isolation was provided.

Positive results were conveyed to the employee by telephone by a consultant in infectious diseases. The swab results that were negative were emailed to the employee. Queries and further advice on self-isolation were managed by the medical team in occupational health.

UK-wide social distancing was imposed on 20 March 2020 with school closures, and with UK-wide closure of business and transport from 23 March.

During stage 2 from 16 to 24 March, the number of requests for swabs increased rapidly and the number of positive swab results also increased necessitating a change in the model. The email account was receiving 1500 emails per day as the concomitant increase in questions and concerns related to COVID and pregnancy, underlying health conditions. Self-isolation peaked from 16 to 17 March 2020.

The criteria for swabbing were adjusted as it became clear all symptomatic staff may require swabbing including those in non-patient-facing roles. Clinical criteria were adjusted as it became clear that the range of presenting symptoms was somewhat different from the inpatient group. New and continuous cough with or without fever was included but along with any other symptoms causing a functional effect sufficient to seek advice. For example, loss of taste or smell, sinusitis, nose bleeds, fatigue, myalgia and back pain.

We continued to arrange swabs as soon as possible after contact with occupational health. An appointment for a test in a designated screening pod was allocated by email. The appointments for swabbing were available 08.00 to 22.00. It was also necessary to introduce 7-day working to process appointment requests and results.

Combined nose and throat swabs were taken by trained dental nurses taken for SARS-CoV-2 RT-PCR and written advice about self-isolation was provided. All positive results were communicated to the employee by consultant occupational physicians and a senior sister in occupational health by email using a template letter. Negative results were emailed to the employee by the occupational health technicians. Templates were developed which facilitated cascading the tasks to those with delegated clinical skills.

During stage 3 from 4 April 2020 to date, the demand for staff swabbing reduced and the access continued to be manageable via email. Criteria for swabbing remained that all symptomatic staff require swabbing including those in non-patient-facing roles. During this phase requests for repeat swabbing started to increase; however, we have currently maintained a standard of no repeat swabbing, but we treated those who had persistent

symptoms and felt unable to work as possibly positive for COVID-19. We advised to them to self-isolate until well enough to return to normal work function.

NICE Guidance was introduced with a requirement for re-swabbing of previously positive people who work with bone marrow transplantation patients and this led to a need to facilitate recall and re-swabbing in a very small number of cases [1]. We did not apply any timing-related criteria to those referred for swabbing. There were no changes in protocol or reporting.

Rapid adaptation of processes was necessary in order to accommodate the frequent changes in national guidance and clinical scenarios evolving in real time. Use of email and electronic records facilitated contemporaneous record keeping and also allowed audit and review of practice to be initiated rapidly.

Effective daily communication with those supporting the activity and implementation of skill mix matching, for example the use of redeployed dental nurses to do the swabbing and use of the redeployed clinical research nurses to assist with assessment criteria and data uploading which proved vital in being able to review activity, went particularly well.

Communicating to staff the rapidly changing criteria was challenging and in order to avoid a sense of artificial prioritization we adopted an inclusive swab strategy. This appears on first analysis to have been appropriate in the early phase of what seems to be community acquisition. The data are being reviewed to assess whether changes to this strategy are required.

## Funding

K.F.B. is funded by a National Institute for Health Research (NIHR) Clinical Lectureship (CL-2017-01-004). The views expressed are those of the authors and not necessarily those of the NHS, the NIHR or the Department of Health and Social Care.

## Acknowledgements

A team of clinical and academic colleagues supported our rapid clinical decision-making without whom we would have not been able to deliver this high-priority clinical service. Ewan Hunter, David A. Price, Andrew Welch, Brendan A. Payne, Christopher J. A. Duncan, Matthias Schmid.

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## Reference

1. National Institute for Health and Care Excellence. Covid-19 rapid guideline: haematopoietic stem cell transplantation. NICE guideline [NG164], 2020.