Faculty of Occupational Medicine
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Coronavirus risk assessment and health-scoring systems – ethical considerations

The Royal College of Physicians published ethical guidance for frontline healthcare staff in April 2020, specifically focusing on the response to the COVID-19 (SARS-CoV02) pandemic (RCP 2020). As part of the recommended ethical framework, accountability, reasonableness and responsiveness are noted as three of five principal values informing ethical decision making and practice (Daniels, 2000). The RCP guidance notes that "…all accountability for [clinical] decisions still holds."

Occupational Health has a key role in assisting employers to risk assess their workplaces and develop strategies to mitigate and minimize risk of transmission among employees and between employees and the public. A significant proportion of COVID-19 cases are believed to be related to occupational exposure (Koh, 2020).

Public Health England (PHE) notes "[t]here is clear evidence that COVID-19 does not affect all population groups equally. Many analyses have shown that older age, ethnicity, male sex and geographical area, for example, are associated with the risk of getting the infection, experiencing more severe symptoms and higher rates of death." (PHE 2020). In the same paper, PHE recommends the acceleration of "…the development of…occupational risk assessment tools that can be employed in a variety of occupational settings and used to reduce the risk of employee's exposure to and acquisition of COVID-19, especially for key workers working with a large cross section of the general public or in contact with those infected with COVID-19." (Ibid.)

Several such tools have been developed, which seek to consider a variety of factors known to impact upon specific risk factors relevant to the individual and the impact upon them should they contract COVID-19, and to quantify that risk in order to facilitate the risk-assessment process. While such tools may have significant benefits in facilitating consistent decision-making in a responsive way to a rapidly-changing situation, there are some ethical considerations that should be considered before using such tools in occupational health practice

1) **Risk stratification of the individual must be considered in a wider functional, occupational and social context**

An individual's health risk factors should they be exposed to or contract COVID-19 is a relevant data point when making occupational health recommendations, but this must only be used in the context of the wider risk assessment of that person's personal and employment circumstances. A person working in a public facing role may be at significantly lower risk than another in a similar role (personal factors aside) if appropriate risk-mitigation strategies are put in place for them in the workplace. As noted by FOM:

"As part of managing the health and safety of any work activity one must control the risks in the workplace. To do this one needs to think about what might cause

harm to people and decide on reasonable steps to prevent that harm. This is known as risk assessment and it is something that is required by law.
After identifying the Hazard, key factors when undertaking Risk Assessment are: environmental factors (including exposure measurement) and human factors (who might be at risk and how/why), which includes personal factors, health, risk behaviours etc." (FOM, 2020)

2) COVID-19 risk stratification tools are an aid to, not a surrogate for, clinical decision making

As noted in the RCP guidance, accountability for clinical decision-making and any resultant recommendations lies with the clinician. There is a high risk of risk stratification tools being used as the final arbiter for a decision because of their ease of use, rather than as the 'starting point' for the decision-making process leading to a recommendation.

Clinicians must be suitably qualified to make recommendations and must recognise the limits of their clinical competence and not exceed them in practice. The result of a risk stratification exercise is itself one data point that can be considered as part of a holistic assessment of risk for the individual, relevant to their circumstances.

Clinical risk stratification tools can assist in discussions between clinicians and their patients, including in relation to decisions about work. Emergency measures taken at the start of the pandemic to cope with the immediate crisis may have necessitated managers seeking health information and undertaking assessment in relation to work placement without specialist support. This is not advisable in "normal" circumstances because of the sensitive nature of the information required and the complexity of a thorough assessment. As understanding of COVID-19 develops, clinicians have a responsibility to review emergency processes to ensure they continue to be fit for use, and to advise employers accordingly if such processes are no longer fit for purpose, or if further clinical expertise should be requested.

3) The quality of the tool, and the evidence used to develop it, must be considered

Clinicians or departments looking to implement use of a risk-stratification tool must consider carefully both the evidence base used in the development of the tool, as well as, whether the tool itself has been peer-reviewed, validated or otherwise quality assured. The rapidly-evolving nature of the COVID-19 crisis means that evidence is sometimes sparse and the scientific knowledge base is continually evolving. Users of such tools should consider how frequently the tool is updated, whether changes in the understanding of risk associated with COVID-19 may impact upon recommendations made in the future, and whether alternative sources of clinical resource may be used to assist decision-making processes in making recommendations.

4) Data protection

A tool which parses a variety of personal information (such as age, ethnicity, body mass index) and health information including aspects of medical history, into an easy-to-interpret score is attractive in terms of ease-of-use and apparent consistency in application. The handling of occupational health data, and indeed any health records, must be done in line with relevant legislation and with

appropriate security. A 'health score' has a significant potential for misuse and resultant harm, and an awareness of the potential damage a data breach could cause may be beneficial for clinicians. First, a score purporting to ascribe a level of health risk could be misused to inappropriately deny care, insurance cover or other services. Second, the unauthorised disclosure of an outcome score could lead to direct or indirect discrimination in the workplace or in society. Third, a data breach containing such information has the potential to cause significant psychological morbidity due to the sensitive nature of the data set and the potential for misuse outlined above.

Conclusion

Tools which assist clinicians to stratify risks associated with COVID-19 have significant potential benefit. However, their use must only form part of a robust and thorough clinical assessment process conducted under the supervision of appropriately qualified health professionals, within the limits of those professionals' competence.

The potential ethical disadvantages of using such tools should not in themselves preclude their use, but should be taken into consideration when designing an occupational health strategy used in the response to the COVID-19 crisis.

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Dr Steve Boorman, Chair Ethics Committee
Dr Anne de Bono, President

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