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Commentary

Safety briefing and visual design key to protecting health care personnel during the COVID-19 pandemic

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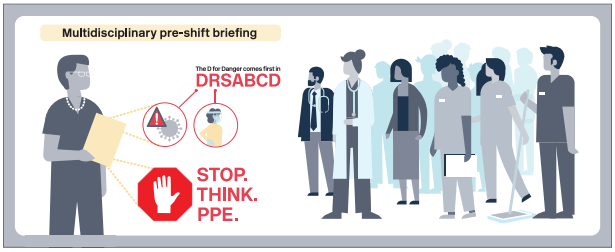

The COVID-19 pandemic has led to widespread changes as countries echo the call for millions to stay at home in an attempt to limit transmission of SARS-CoV-2, the virus that is responsible for the COVID-19 infection. Health care personnel (HCP), on the other hand, continue to serve on the front line. With their being a limited, human resource, it is paramount that the safety of HCP is not compromised.[1] At our health service in Victoria, Australia, we have implemented a human factor-centric education model with the aim to maximize safety through key messages and clear communication.

Our health service, Monash Health is Victoria's largest public health service network and includes three major metropolitan hospitals. Our education model is based on providing consistent and clear safety messages to all HCP, regardless of role and hospital site. It is modelled on the principles of pre-flight safety announcements used in the aviation industry; another high-stakes sector. Infographics (Fig 1), video summaries and pre-shift briefings are part of the education model.[2]

This model encompasses 6 key messages to:

1. Reinforce the importance of identifying the virus as the predominant danger
2. Include personal protective equipment (PPE) in response to danger
3. Focus on hand hygiene
4. Reinforce social distancing
5. Encourage HCP wellness and teamwork
6. Maximize communication, ensure understanding, and provide an opportunity for feedback and questions

The importance of cognitive aids for education of HCP is important to maximize their safety. As countries transition to an endemic phase of COVID-19 and the rate of asymptomatic carriage increases, we aim to use these aids to reduce danger to HCP, patients and the community. We believe it is important to reinforce the need to consider all potential dangers when managing COVID-19 patients ("The D [danger] comes first"). The DRSABCD mnemonic actively used in critical care and resuscitation is displayed to relay the acuity of the situation.[3] This will encourage the health care team to respond ("R" in DRSABCD) appropriately by applying PPE.

Hand hygiene compliance has been effective in reducing hospital-acquired infections,[4] and remains vital during a pandemic to reduce viral spread in HCP and patients with known, suspected or unknown COVID-19. Through active and passive social distancing, we aim to reduce the risk of COVID-19 transmission between HCP, patients and community. The reinforcement of adherence to PPE and double-checking PPE fit with a co-worker minimizes risk a virus transmission

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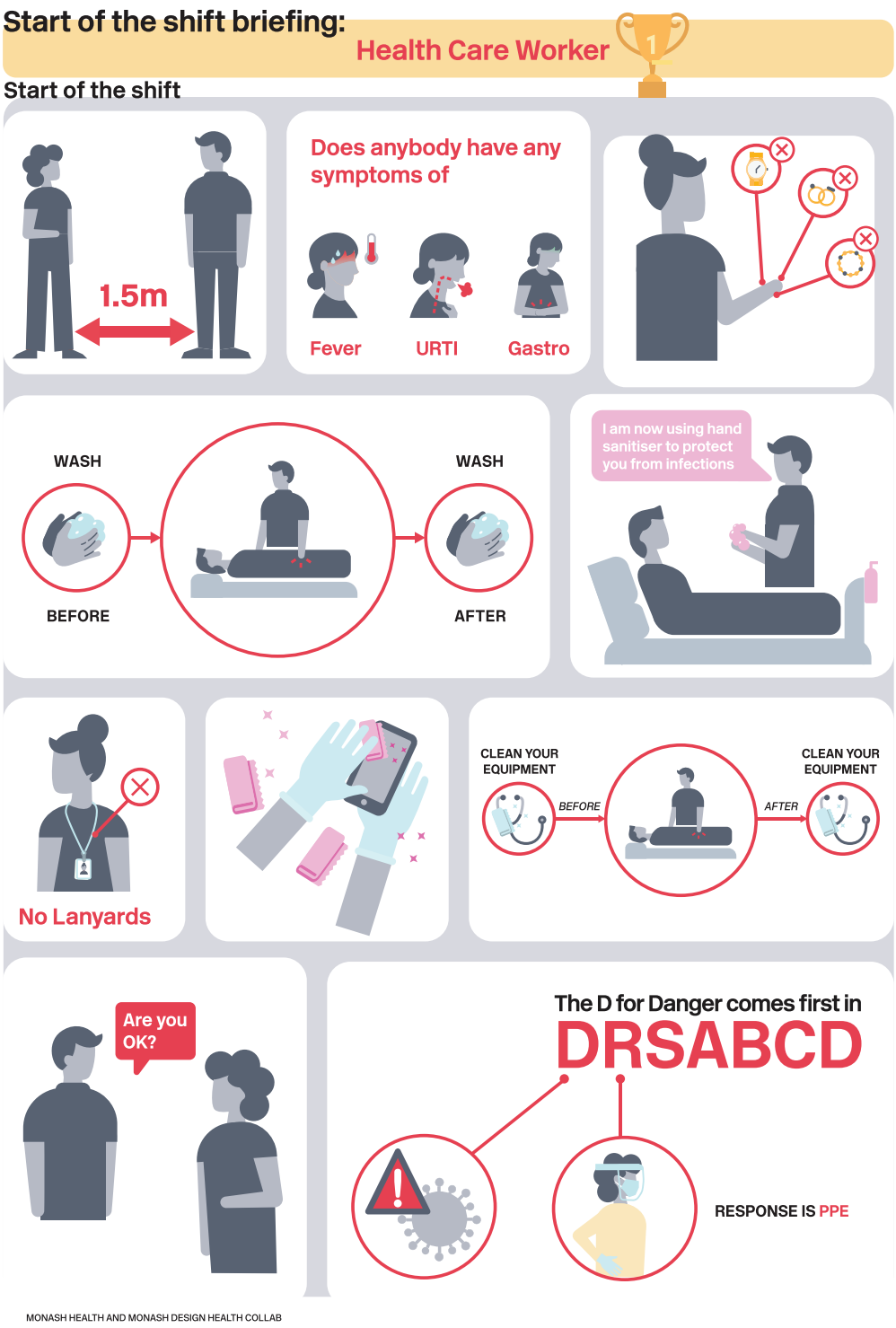

Fig. 1. Visual design for safety briefing at the start of the shift and at clinical areas.

to other HCP and patients. The briefing is designed to be multidisciplinary and inclusive of the whole HCP team. Part of the safety model is the wellness check for HCP. Finally, closed loop feedback and communication allows for active updates to our education model to ensure continued relevance for all HCP staff.

With the use of human factors, our education model aims to become a cognitive aid for all HCP to maintain safety during the pandemic. A recent study identified suboptimal hand hygiene and long duty hours as risk factors for COVID-19 transmission to HCP.[5] Therefore, one must consider other factors apart from PPE to prevent transmission of COVID-19. The use of easily identifiable infographics with simple and consistent shift briefings allows for the rapid communication of information to HCP across multiple hospitals, while maintaining message recognition. A culture of safety and confidence among HCP during this pandemic will not only ensure their safety, but also that of their patients and the community.

Fig. 1. Continued.

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