

advised to weigh the risks and benefits of this practice and consider their local facility policies²⁰.

Given the impact of the COVID-19 global pandemic on healthcare staff, interventions to assist staff wellbeing are paramount²². The aim of this paper is to present a tip sheet to assist in preventing the occurrence of DRPI in staff wearing PPE for prolonged periods.

Methods

We formed a local expert group comprised of six skin integrity specialists and researchers in two Australian states, Queensland and New South Wales. We used an iterative consensus process for group decision-making where information generated from iteration was disseminated to group members via email; this supported the group members' decision-making through structured discussion²³.

We classified a prolonged period in PPE as greater than 2 hours. Consultation was also carried out with infection control experts, along with a brief safety trial of the proposed strategies conducted by expert group members to ensure correct fit and seal of the masks was maintained as per local state guidelines^{6,7}. We sought email feedback from staff on their experiences of applying and wearing the skin protection strategies.

We used communication via email; emails were distributed to all group members using the 'reply all' function. Key documents available at the time^{8,18-21} were disseminated to the group to inform group decision-making. Further, content of the tip sheet was determined by local availability of products.

All group members replied to indicate their suggestions for, and agreement with, content and proposed changes. Changes to text and comments made to the tip sheet were performed using the edit and track changes function in Microsoft Word (Microsoft Office, 2016). Each change, or iteration, achieved 100% group agreement. The tip sheet was developed by the

expert group using key communication strategies to attract the readers' attention and promote ease of understanding with straightforward provision of key information²⁴.

A near final draft was then circulated to senior nursing leadership in the intensive care service of one facility for their review and comment. Changes to the tip sheet were then made and consensus achieved within the expert group. The tip sheet was circulated to staff in the intensive care units and the COVID clinics of two healthcare facilities, using multiple strategies such as email, posters displayed in prominent clinical areas, word of mouth and the expert group members providing information face-to-face. We also placed a poster of the tip sheet at the PPE donning station as a visual prompt. This was accompanied by baskets of the appropriate prophylactic dressings and materials/product supplies placed with the PPE in the clinical PPE robing to ensure easy access for staff.

Feedback was sought from staff via email or verbal face-to-face communication with one of the authors at each facility.

Results

The tip sheet provides staff with information on skin protection (Figure 5), the principles involved (Figure 6), and a step-by-step guide to preparing and applying a quick and efficient method of skin protection using a dressing foam pad (Figure 7) and a silicone tape and adherent prophylactic dressing (Figure 8). The suggested prophylactic dressings and materials proposed in the tip sheet were chosen based on clinical availability and expert opinion. Further options for staff who are allergic to silicone or protective rubber gloves are provided in Figure 9.

Feedback was received from 12 staff members; this highlighted two key issues – fading/reduction of skin redness and slippage of prophylactic dressings.

Figure 5. Skin protection information

- Wearing of PPE masks and eye protection when caring for COVID-19 patients or undertaking screening/swabbing procedures for prolonged periods causes sweating and areas of pressure points on all areas of the skin in contact with PPE, for example the bridge of the nose, cheek bones and above the ears.
- Follow the intensive care unit/hospital policy for the use, and application, of PPE.
- Use of a skin barrier protectant (e.g. Cavilon™) and a dressing pad (Mepilex® Lite) or silicone tape (Mepitac® or Sofsicure®) as an interface between PPE and the skin to alleviate pressure, shear and friction is recommended.

Figure 6. Principles involved in skin protection

- Skin protection tips should be applied at the discretion of each RN.
- Facial prophylactic dressings are single use only.
- Facial skin protection should be applied after hand hygiene and first before donning PPE.
- Each time prophylactic dressings are applied to the face, the integrity of the seal of the mask (PPE) must be checked.
- Facial skin protection should be **removed as the last step** when removing PPE.

Figure 7. Step-by-step guide to preparing and applying a quick and efficient method of skin protection using a dressing foam pad

| Step 1 | Step 2 | Step 3 | Step 4 |
|---|---|---|---|
|  <p>Wash hands. Apply no sting barrier film wipe* (e.g. Cavilon™) to the face where the dressing will be applied. Allow to dry before applying the dressing.</p> |  <p>Use 1 single Mepilex® Lite* dressing 10cm x 10cm OR DouDERM® Extra Thin. The dressing will be cut in half. Place the unused half back in the plastic dressing packet, label the packet with your name and store the packet in a clean safe place for your second application OR use the remaining half to protect your ears – see next step.</p> |  <p>Follow the template. Cut the dressing in half. Cut the two diagonal cuts (2 & 3) to give 2 triangles. Cut the edges of the large triangle to fit your nose. Option: Use the other half of the dressing, cut in two pieces, to wrap around each arm of your eye wear to protect your ears.</p> |  <p>Final cut shapes. Adjust or recut the dressing to suit your facial shape and the pressure points of the mask on your face – cheeks and nose.</p> |
| Step 5 | Step 6 | Step 7 | Step 8 |
|  <p>Wash hands. Apply the triangles from the 2nd and 3rd cuts to your cheek.</p> |  <p>Apply the cut dressing section to the bridge of your nose.</p> |  <p>Wash hands. Apply the face mask.</p> |  <p>Wash hands. Apply the hair cover and eye shield. Wash hands.</p> |

* The use of products in this tip sheet is off label