Prevention and Management of Skin Damage Related to Personal Protective Equipment

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Objectives

By the end of this session the learner will be able to:

• Discuss PPE related skin injuries
• Describe prevention and management of PPE related skin injury
• Describe the importance of ensuring any prevention or treatment does not interfere PPE efficacy
Disclaimer

- It is the responsibility of each healthcare professional to verify with their institutional infection control team that any measure taken to prevent or manage PPE-related skin injuries do not interfere with the efficacy of the PPE nor are in contravention to any workplace policy.

- This presentation and the NSWOCC Prevention and Management of PPE related skin injury document is intended to highlight the emerging concern of PPE-related skin injury and to provide prevention and management solutions for potential PPE related skin injury.

- Individuals may require a repeat mask fit testing to ensure prevention and management efforts do not interfere with PPE efficacy.
Purpose

• Provide NSWOC’s and other healthcare professionals with an evidence based approached to the management of PPE related skin injuries

• Not designed to replace or supersede local policies and procedures
Summary of Key Recommendations:

• Adequate skin care before and after the use of PPE. Application of barrier protectors and regular moisturizing should be carried out.

• Moisturize hands regularly, and ensure hands are clean and dry prior to donning gloves.

• Use of dressing material as an interface between the PPE and the skin in the areas of adhesion / pressure / friction.

Caution:

• Healthcare workers MUST confirm with their infection control team that the dressing material used will not diminish the efficacy of their PPE.

• Dressing material will not interfere with surgical masks; however, MAY interfere with the efficacy of fit-tested masks.
Summary of Key Recommendations:

A. Skin Protection

- Perform daily hygiene routine followed by moisturizing cream and/or skin protector.
- Consider using an acrylate polymer and/or dimethicone based cream (longer durability).
- Moisturizer should be applied to regions of greater surface contact (ears, forehead, nose and malar area) with PPE.
- Moisturize hands regularly, and ensure hands are clean and dry prior to donning gloves.

- NOTE: Ensure that the moisturizer has been allowed to dry to form a film not affecting the seal of the PPE prior to application so as not to interfere with PPE efficacy.

Summary of Key Recommendations:

B. Use the PPE appropriate to the level of care to be provided and institutional policy

- Ensure proper fit of PPE.
- Follow your local protocol for applying and removing your PPE.
- Adjust the device to the shape of your nose/face before definitively applying PPE.
- Confirm that you do not feel discomfort at any specific point of contact between the skin and the device.
- Skin irritation can be related to the misapplication of PPE.

Summary of Key Recommendations:

C. Use of Dressing Material / Interface between PPE and the Skin.

• When appropriate and if it has been deemed that the use of a dressing will not disrupt the efficacy of the PPE.
• Wash and dry the face, specifically in the places where the dressing material will be applied
• Cut and adjust the material to the application site.
• The material- PPE interface should be re-evaluated on a regular basis to ensure best fit
• Apply interface to skin WITHOUT tension to avoid medical adhesive related skin injury.
• Assess for “good” fit after applying PPE, verifying the PPE seal and insuring no areas of additional pressure.

Summary of Key Recommendations:

D. Pressure Relief

• It is recommended that PPEs be removed, and pressure areas relieved every 4 hours. This should be done in accordance with local policy and procedures.

• Note: If the dressing or the PPE becomes wet or soiled, it must be changed immediately.

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Summary of Key Recommendations:

E. Skin Cleansing and Hydration

- Once the PPE has been removed the dressing should be removed and skin inspected.
- After hand washing, face and neck should be thoroughly cleansed using soap and water, paying special attention to areas under pressure. **Do not rub these areas as this may increase tissue damage.**
- Dry the face and apply a moisturizer to the face. If skin breakdown is present, dressings may be required.

*Note: Healthcare professionals need to optimize hydration and nutrition to ensure skin health and a balanced physiological response.*

## Stepwise Approach for the Prevention and Treatment of PPE-related skin damage

<table>
<thead>
<tr>
<th>Level of Tissue Damage</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hands Prior to Donning Gloves</strong></td>
<td>Non-Airtight Personal Protective Equipment (e.g. surgical mask, goggles, face shield)</td>
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<tr>
<td><strong>Options</strong></td>
<td><strong>Options</strong></td>
</tr>
<tr>
<td><strong>Level One</strong> (Intact – Non Erythemic Skin) Prevention</td>
<td>• Provide staff with appropriate hand moisturizing skin care products (and encourage regular, frequent use) to minimize the risk and occurrence of irritant contact dermatitis associated with hand hygiene.</td>
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<tr>
<td></td>
<td>• Optimally, the best hand cream is one where the hand cream’s fat content is approximately 70%.</td>
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<tr>
<td></td>
<td>• Remove all nail polish, artificial nails prior to applying gloves</td>
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<td></td>
<td>• Avoid wearing jewelry and wrist watches</td>
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<tr>
<td></td>
<td>• Ensure hands are dry (after washing, using hand sanitizers or applying moisturizer) prior to applying gloves</td>
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<tr>
<td></td>
<td>• Seek medical attention if irritation persists</td>
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<tr>
<td><strong>Level Two</strong> (Intact – Erythemic skin) Stage 1 Pressure Injury</td>
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<tr>
<td><strong>Level Three</strong> (Non-Intact Skin) Stage 2 Pressure Injury</td>
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## Dressing categories for the prevention and treatment of PPE related skin damage

<table>
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<tr>
<th>Dressing Type</th>
<th>Description</th>
<th>Examples (Not Exhaustive List)</th>
</tr>
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</table>
| **Dimethicone Cream** | • Dimethicone is a type of silicone which can act as a skin barrier. Often used as a skin protectant ingredient for wound healing and treatment of dry skin. | • Prosheild  
• Secura protective dimethicone cream  
• Sween 24 dimethicone cream  
• Braza Cleanse and Protect  
• Remedy Phytoplex Hydraguard |
| **Hydrocolloid** | • A hydrocolloid dressing is an opaque or transparent dressing for wounds.  
• A hydrocolloid dressing is breathable and adheres to the skin, so no separate taping is needed.  
• In contact with wound exudate, the polysaccharides and other polymers absorb water and swell, forming a gel.  
• The gel may be designed to drain, or to remain within the structure of the adhesive matrix. | • Tegaderm hydrocolloid  
• Duoderm thin  
• Nuderm  
• Comfeel  
• Brava Elastic Barrier Strips |
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<td><strong>Foam</strong></td>
<td>• Absorptive dressings comprised of polyurethane or silicone. Provide moist wound healing.</td>
<td>• Mepilex Lite - Non-Border • Allyven thin – Non-Border • Optifoam Thin</td>
</tr>
<tr>
<td><strong>Non-perforated silicone adherent sheet</strong></td>
<td>• Silicone dressing sheet with adherent backing • No moisture absorption.</td>
<td>• Medi-Clear Scar</td>
</tr>
<tr>
<td><strong>Perforated silicone adherent sheet</strong></td>
<td>• Perforated silicone dressing sheet with adherent backing • No moisture absorption.</td>
<td>• Mepitel - One • Adaptic Touch</td>
</tr>
<tr>
<td><strong>Moisturizing Cream</strong></td>
<td>• Treat or prevent dry, rough, scaly, or itchy skin and other minor skin irritations</td>
<td>• Sween Cream • Atrac-tain • Smith and Nephew Professional Cream • Remedy Phytoplex Nourishing Skin Cream</td>
</tr>
<tr>
<td><strong>Barrier Cream</strong></td>
<td>• Protective cream • Protects intact or damaged skin from moisture, adhesive trauma and friction</td>
<td>• Remedy Phytoplex Moisturising Barrier Cream • Brava Barrier Cream • Cavilon durable barrier cream</td>
</tr>
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| **Barrier Wipe / Spray** | • Alcohol-free liquid barrier film that protects  
• Protects intact or damaged skin from moisture, adhesive trauma and friction  
• Forms a breathable, transparent coating on the skin | • Cavilon No Sting Barrier film  
• Smith and Nephew No sting Barrier Film  
• Brava Skin Barrier Film |
Tricks of the trade


- Forehead
- Nose and face
- Ears
- Thickness
SKIN WELLNESS ASSOCIATE NURSE
SWAN™ PROGRAM

What is the SWAN™ Program?

The Nurses Specialized in Wound, Ostomy and Continence Canada (NSWOC) Wound, Ostomy and Continence (WOC) Institute, developed the Skin Wellness Associate Nurse (SWAN™) Program in response to the growing need in Canada for healthcare professionals with advanced wound, ostomy and continence knowledge. The NSWOC and WOC-Institute developed the online SWAN™ education program as a means to support and empower NSWOCs and improve clinical outcomes by enhancing wound, ostomy and continence care teams. The SWAN™ program prepares non-specialty nurses to provide basic, bedside wound, ostomy and continence care.

The goal of the SWAN™ Program is to educate and prepare more skilled wound, ostomy and continence nurses across the spectrum of care (e.g., acute care, long-term care and homecare). Students will have an enhanced ability to provide optimal care for individuals with wound, ostomy and continence issues as members of a collaborative NSWOC team. The program is designed to provide non-specialty nurses the ability to provide wound, ostomy and continence care under the direction of the NSWOC, Clinical Nurse Specialist (Wound, Ostomy or Continence) or Physician and to be integral members of the WOC team.

PROGRAM OVERVIEW

The SWAN™ program is geared towards RNs, LPNs and Diploma RNs who want to advance their knowledge in the areas of wound, ostomy and continence. Upon completion they will be eligible to use the SWAN designation.

Course Length
- Two cohorts per year starting in February and August respectively.

Course is four (4) months long.

Topics Covered
- Integumentary System
- Wounds
- Ostomies
- Continence Care

Program Cost
- $3,000 per Course
- $500 Course Administration Fee
- NSWOC membership registration

WOUND, OSTOMY & CONTINENCE
Education Program (WOC-EP)

Wound, Ostomy and Continence Institute: Administrative Office
1873 Chaine Court
Ottawa, Ontario, K1C 2W6
Office: 1-877-614-1262

INTERESTED IN RECEIVING UP TO DATE INFORMATION?
JOIN NSWOC TODAY!

www.wocinstitute.ca
www.wocinstitute.ca

PROGRAM OVERVIEW

The WOC-EP consists of 3 courses:

OSTOMY MANAGEMENT | WOC-EP001
- 16 weeks plus 75 hours of preceptorship
CONTINENCE MANAGEMENT | WOC-EP002
- 13 weeks plus 75 hours of preceptorship
WOUND MANAGEMENT | WOC-EP003
- 16 weeks plus 75 hours of preceptorship

CERTIFICATION

The WOC-EP is the only Canadian program which leads to Canadian Nurses Association certification in Wound, Ostomy & Continence - WOC (C).

Putting the CNA certification credential after your name indicates to patients, employers, professional-licensing bodies and the public that you are qualified, competent and current in the specialty of Wound, Ostomy and Continence Nursing. It distinguishes you as a Registered Nurse who "Cares to Be the Best!"

The certification credential WOC(C) or Wound, Ostomy and Continence Certified (Canada), is an important indicator to patients, employers, the public and professional licensing bodies that the certified nurse is qualified, competent and current in a nursing specialty/area of nursing practice. Certified nurses have met rigorous requirements to achieve this expert credential.

The CNA WOC(C) certification exam is the final exam for the WOC-EP. The exam is to be written within one year of completing the program and students can sign up to write the exam immediately upon completing the wound management course.

A CNA certification prep course has been developed and is available to students, which helps students become well prepared to sit the exam. The current exam pass rate is 95%.

HOW TO GET STARTED

1. Go to www.wocinstitute.ca
2. Click on Future Students
3. Click on WOC-EP
4. Read the admission requirements
5. Initiate the online application process

Who's Who

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www.nswoc.ca
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39E CONGRÈS NATIONAL DES ISPSCC
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