Distinguishing Between Incontinence Associated Dermatitis (IAD) & Pressure Injuries (PI)

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Acknowledgement

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The work is part of the Hospital Acquired Pressure Injury (HAPI) project in SLHD and many of the photos are courtesy of Michelle Barakat-Johnson and Thomas Leong, SLHD.
Aims

- To provide evidence based information to improve clinical knowledge about Incontinence Associated Dermatitis (IAD) and Pressure Injury (PI)
- To assist clinicians distinguish between IAD and PI
Guideline & Best Practice Principles

Prevention and Treatment of Pressure Ulcers/Injuries: Clinical Practice Guideline
The International Guideline 2019

BEST PRACTICE PRINCIPLES
INCONTINENCE-ASSOCIATED DERMATITIS:
MOVING PREVENTION FORWARD

Addressing evidence gaps for best practice
- Identifying causes and risk factors for IAD
- IAD and pressure ulceration
- IAD assessment and severity-based categorisation
- IAD prevention and management strategies

Proceedings from the Global IAD Expert Panel
Pressure injury classification

- **STAGE 1**: Non-blanchable erythema
- **STAGE 2**: Partial thickness skin loss
- **STAGE 3**: Full thickness skin loss
- **STAGE 4**: Full thickness tissue loss
- **UNSTAGEABLE**: Depth Unknown
- **SUSPECTED DEEP TISSUE INJURY**: Depth Unknown

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Pressure injury classification

Stage I pressure injury: non-blanchable erythema
- Intact skin with non-blanchable redness or a localized area usually over bony prominence.
- Darkly pigmented skin may not have visible blanching; if doubt may differ from surrounding area.
- Tissue may be painful, firm, soft, warm or cooler compared to adjacent tissue.
- May be difficult to detect in individuals with dark skin tones.
- May indicate "at risk" persons (e.g. hereditary sign of risk).

Stage II pressure injury: partial-thickness skin loss
- Partial thickness loss or dermis presenting as a shallow, open wound with well-defined, rounded border, without slough.
- May have an intact or open frank or serum-filled blister.
- Presents as a dry or clay, shallow ulcer without a visible undermined, intact skin edge, indicates suspected deep tissue injury.
- Stage II should not be used to describe skin erosions, burns, pressing or abrasion, maceration or excoriation.

Stage III pressure injury: full-thickness skin loss
- Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon or muscle are not exposed. Slough may be present but does not obscure the depth of tissue loss. May have undermining or tunneling.
- Depth of stage III lesions by anatomical location:
  - The bridge of the nose, heel, occiput and sacrum do not have subcutaneous tissue and stage III PI can be shallow.
  - In contrast, areas of significant adiposity can develop extremely deep stage III PI. Bone or tendon is not visible or directly palpable.

Stage IV pressure injury: full thickness tissue loss
- Full thickness tissue loss with exposed bone, tendon or muscle. Slough or necrotic tissue may be present on some parts of the wound bed.
- The depth of stage IV pressure injury varies by anatomical location, the bridge of the nose, heel, occiput and sacrum do not have subcutaneous tissue and these PIs can be shallow. Stage IV PI can extend into muscle and/or supporting structures (e.g. muscles, tendon or skinappendages) making additional layers possible. Exposed bone or tendon is visible or directly palpable.

Unstageable pressure injury: depth unknown
- Full thickness tissue loss in which the depth of the PI is obscured by slough (yellow, brown, green or browning) and/or exudate (e.g. serous, purulent fluid or blood). The PI bed is clean and deep tissue injury cannot be determined. Tissue (dry, adherent) intact without erythematous or fluctuant, which may later serve as the body's natural biological cover and should not be removed.

Suspected deep tissue injury: depth unknown
- Purple or maroon discolored area or discoloration, intact skin or blubluid/tissue due to damage of underlying soft tissue from pressure and/or shear. The area may be precursad by tissue that is pallid, firm, shiny, rigid, warm or cool as compared to adjacent tissue.
- Deep tissue injury may be difficult to detect in individuals with dark skin tones.
- Evolution may include a thin blisters over a dark wound bed. The PI may further thicken and become covered by thick exudate. Evolution may be rapid, exposing additional layers of tissue with optimal treatment.

All graphics designed by Janet Della, Case Illustrative. http://www.caseillustrative.com.au

## IAD severity categorisation tool

<table>
<thead>
<tr>
<th>Clinical presentation</th>
<th>Severity of IAD</th>
<th>Signs**</th>
</tr>
</thead>
<tbody>
<tr>
<td>No redness and skin intact (at risk)</td>
<td></td>
<td>Skin is normal as compared to rest of body (no signs of IAD)</td>
</tr>
<tr>
<td>Category 1 - Red* but skin intact (mild)</td>
<td>Erythema</td>
<td>+/-oedema</td>
</tr>
<tr>
<td>Category 2 - Red* with skin breakdown (moderate-severe)</td>
<td>As above for Category 1</td>
<td>+/-vesicles/bullae/skin erosion</td>
</tr>
<tr>
<td></td>
<td>+/-denudation of skin</td>
<td>+/-skin infection</td>
</tr>
</tbody>
</table>

* Or paler, darker, purple, dark red or yellow in patients with darker skin tones

**If the patient is not incontinent, the condition is not IAD
### Distinguishing IAD from pressure injury

<table>
<thead>
<tr>
<th>Parameter</th>
<th>IAD</th>
<th>Pressure injury</th>
</tr>
</thead>
<tbody>
<tr>
<td>History</td>
<td>Urinary and/or faecal incontinence</td>
<td>Exposure to pressure/shear</td>
</tr>
<tr>
<td>Symptoms</td>
<td>Pain, burning, itching, tingling</td>
<td>Pain</td>
</tr>
<tr>
<td>Location</td>
<td>Affects perineum, perigenital, peristomal area; buttocks; gluteal fold; medial and posterior aspects of upper thighs; lower back; may extend over bony prominence</td>
<td>Usually over bony prominence or associated with location of a medical device</td>
</tr>
<tr>
<td>Shape/edges</td>
<td>Affected area is diffuse with poorly defined edges/ may be blotchy</td>
<td>Distinct edges or margins</td>
</tr>
</tbody>
</table>
| Presentation/depth | Intact skin with erythema (blanchable/non-blanchable), with/without superficial/ partial-thickness skin loss | 1. Presentation varies from intact skin with non-blanchable erythema to full-thickness skin loss  
2. Base of wound may contain non-viable tissue |
| Other         | Secondary superficial skin infection (e.g. candidiasis) may be present | Secondary soft tissue infection may be present                                   |

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Distinguishing IAD from PI

Sometimes it’s confusing to know which is which. Here is an example of a patient who has moisture lesions as well as a pressure injury.

Moisture lesions

- Poorly defined edges, appears blotchy

Pressure injury

- Over a bony prominence, distinct edges
Distinguishing IAD from PI

IAD - Category 1 skin intact

IAD - Category 2

IAD - Category 2

Stage 1 pressure injury

Stage 2 pressure injury

Unstageable pressure injury
Distinguishing IAD from PI

IAD - Category 1 skin intact

Photo courtesy of Dr Jill Campbell
Distinguishing IAD from PI

IAD - Category 1 skin intact
Distinguishing IAD from PI

IAD - Category 1 skin intact
Distinguishing IAD from PI

Photo courtesy of Dr Jill Campbell
IAD reported as PI

Photos courtesy of Michelle Barakat-Johnson SLHD
Differentiating IAD from PI

It is often difficult for clinicians to correctly identify IAD and to distinguish it from PI (Stage 1 or 2).

If the person is not incontinent, the condition is not IAD.

Refer to the ‘Distinguishing IAD from Pressure Injury’ guideline to assist in correctly diagnosing in order to determine the best treatment strategy.
References

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Best practice principles used with permission from Wounds International.

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