



## ICD-10-CM Codes for Moisture Associated Skin Damage

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### LEARN TODAY / USE TOMORROW

#### Present Today:

- 1. Newest ICD-10-CM codes specific to MASD
- 2. Application procedures for approval of the above codes and next steps
- 3. Specific MASD conditions identified by ICD-10-CM codes

#### Apply Tomorrow:

- 1. Learners will know how to identify the ICD-10-CM Codes for MASD conditions
- 2. Learners will apply knowledge about ICD-10-CM Codes to appropriate MASD conditions.
- Learners will use terminology in ICD-10-CM Codes in their health record documentation, clinical communication, and publications

## **CONFLICT OF INTEREST DISCLOSURE**

#### Mikel Gray

I have the following relevant relationship(s) to disclose:

- Coloplast, Inc. Clinical Consultant, honorarium
- C.R. Bard/ Becton-Dickinson, Clinical Consultant, honorarium
- Hollister Inc., Clinical Consultant, honorarium
- Principle Business Enterprises, Clinical Advisory Board, honorarium

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## **CONFLICT OF INTEREST DISCLOSURE**

Donna Bliss

I have the following relevant relationship(s) to disclose:

- NINR, NIH, research grant
- Innovative Design Labs, subcontracts of NIH grants
- Principle Business Enterprises, Clinical Advisory Board, honorarium

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## **CONFLICT OF INTEREST DISCLOSURE**

Laurie McNichol

I have the following relevant relationship(s) to disclose:

Hollister Inc., Clinical Consultant, honorarium

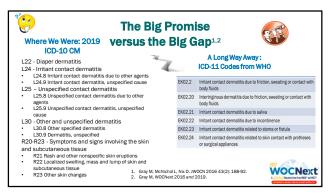
3M, Inc. Clinical Consultant, honorarium



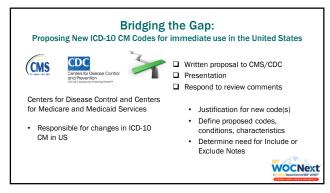
### International Classification of Diseases (ICD)

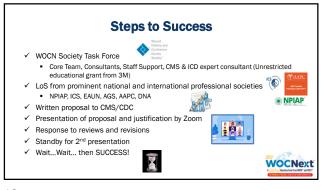
- Global standard for defining and reporting diseases and health conditions
  - Enables comparison and sharing of health information using a common language
     Identification of health trends and statistics globally
- In US, ICD CM codes linked to payment for health care and related supplies

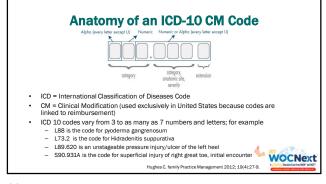
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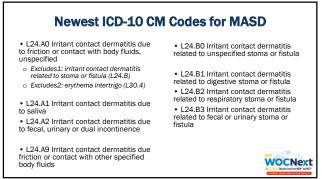


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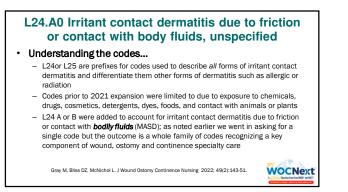










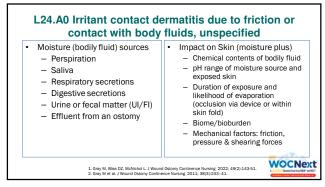


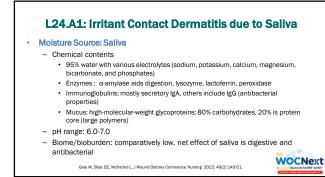


#### L24.A0 Irritant contact dermatitis due to friction or contact with body fluids, unspecified

- Clinical Manifestations of MASD<sup>1</sup>
  - inflammation of the skin, sometimes accompanied by erosion or denudation of the skin, and serous exudate causing skin to glisten
  - Location and distribution reflect likely source of bodily fluid (moisture source), indistinct borders
  - Differentiate from other sources of skin damage
     Pressure/Shear. distinct borders, not located over bony prominence, presence of full thickness tissue loss in many cases, necrotic tissue in some cases, etc.<sup>2</sup>
    - Friction: skin surface that frequently slide against one another, softtissue deformation in the direction of the recurrent slide; lichenification<sup>3</sup> . Gray M Biss D2. Molinel LJ. Wound Ostmy Continence Nursing 2022; 492(14351. 2. Bick J et al.) Wound Ostory Continence Nursing 2019; 48(6):539-70. 3. Berke CT. J Wound Ostory Continence Nursing 2019; 48(6):539-42.

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#### L24.A1: Irritant Contact Dermatitis due to Saliva

Clinical Manifestations

skin

- <u>Cheilitis ("chapped lips")</u>: erythema, scaling of vermilion (lips) and adjacent skin within reach of tongue
- <u>Sialorrhea w/drooling</u>: loos of control over saliva production with ostomies or fistula of oral cavity due to head & neck cancer, neurological or cognitive impairments or neck when occurs in patients with
   <u>Symptoms</u>: itching, burning of damaged



A Clobal Decision from VEX\* and VET

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### L24.A1: Irritant Contact Dermatitis due to Saliva

- Epidemiology & pathophysiology: evidence sparse to absent, one study of epidemiology in cheilitis (n=202) attributed 5% to MASD<sup>1</sup>
- Prevention & Management: Cheilitis (no guidelines found)
  - Behavioral interventions to reduce lip-licking
  - Skin protectants applied to lips and adjacent skin surfaces
- May use corticosteroid creams if allergic contact dermatitis present
   Prevention & Management: Sialorrhea w/drooling (no guidelines found)
- Head & Neck CA (when salivary production is excessive) divert or reconstruct uncontrolled drooling (spit fistula, salivary gland excision, salivary duct ligation and transposition), targeted radiation therapy, pharmacotherapy to reduce salivary production (no approved agents)
- Structured skin care regimen focusing on cleansing and application of skin protectant or topical dressing acting as protective barrier

1. Lim SW et al. Contact Dermatitis. 2000;43(6):322-326. 2. Gray M, Bliss DZ, McNichol L J Wound Ostomy Continence Nursing 2022; 49(2):143-51.

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#### L24.B2: IRRITANT CONTACT DERMATITIS DUE TO RESPIRATORY SECRETIONS

#### Moisture Source

- Chemical contents
  - Water and electrolytes: 95% water, expected electrolytes (sodium etc.)
  - Mucus: contains numerous mucins: MUC 1, 2, 4, 5AC, 5B, 7, 8, and 13
  - Multiple chemokines and cytokines (TGF-β 1-3, IL-10)
- pH range: around 6.0
- Biome/bioburden: rich biome has been described, altered in asthma, COPD, other pulmonary diseases



### L24.B2: IRRITANT CONTACT DERMATITIS DUE TO **RESPIRATORY SECRETIONS**

- Clinical Manifestations
  - Usually seen as inflammation and/or erosion of skin next to a tracheal stoma
  - Differential diagnosis includes medical-related pressure injury from tracheostomy tube or ties used to secure tracheostomy tube or ventilator tubes



1. Gray M, Bliss DZ, McNichol L J Wound Ostomy Continence Nursing 2022; 49(2):143-51. (content & lower figure) 2. Upper figure: Chuang WI, et al. Journal of Wound, Ostomy and Continence Nursing 2013; 40(6): 573-9.

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### L24.B2: IRRITANT CONTACT DERMATITIS DUE TO **RESPIRATORY SECRETIONS**

- Epidemiology & Pathophysiology<sup>1</sup>
  - Limited evidence, sharp increase in this form of MASD seen with COVID-19 pandemic due to rise in tracheostomy with SARS-COV-2; prevalence rates vary from
- Prevention & Management (no guidelines for skin care)
  - Usual care focuses on skin care (from non-WOC literature sources) cleanse with saline, avoid  $H_2 O_2{}^2$
  - Topical therapy: use absorbent prepackaged tracheostomy dressing rather than cotton gauze to avoid inadvertent introduction of cotton fibers into the respiratory system, must be tight enough to prevent unintended extubation JWOCN RCT from WOC group found compare gauze solid cut-to-fit pectin
    - based skin barrier superior to gauze for skin protection<sup>3</sup> WOCNext

1. Gray M, Bliss DZ, McNichol L J Wound Ostomy Continence Nursing 2022; 49(2):143-51. 2. Lawrence PR et al. Rehabilitation Nursing 2021;46(2):83-6. 3. Chuang WI, et al. Journal of Wound, Ostomy and Continence Nursing 2013; 40(6): 573-9. Nursing 2022: 49(2):143-51.

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## L30.4: Intertriginous Dermatitis (intertrigo) Moisture Source: Perspiration (sweat) - Chemical Content >95% water, electrolytes mainly sodium, potassium, calcium, magnesium, zinc - pH range: around 7.3 Biome/bioburden: reflects local skin biome; skin folds lacking evaporative ability will have bioburden and probable predominance of coliform bacteria and related microorganisms Acknowledgement: this code was **not** part of WOCN Society initiative for MASD codes; approved under "other/unspecified" forms of ICD about 1 year prior; included here as prevalent form of MASD WOCNext Gray M, Bliss DZ, McNichol L J Wound Ostomy Continence Nursing 2022; 49(2):143-51.

### L30.4: Intertriginous Dermatitis (intertrigo)

- Clinical Manifestations
  - Inflammation and erosion in any skin fold where 2 skin surfaced rub together such as the axilla, inframammary folds, and groin
  - With ↑ BMI see additional skinfolds between lower abdomen and genital area (abdominal pannus) and multiple other areas
  - Skin damage worst in deepest portion of fold, least at superficial fold as evaporative potential rises



Black JM et al. Journal of Wound, Ostomy and Continence Nursing 2011; 38(4):359-70.

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## L30.4: Intertriginous Dermatitis (intertrigo)

- Epidemiology & Pathophysiology •
  - Incidence of ITD (based on multisite data analysis): 9.6% (95% CI: 8.6-10.6%) home care setting, 6.7% (95% CI: 6.4-7.0) long-term care setting, and 2% (95% CI: 1.8-2.3) acute care<sup>1</sup>
  - Incidence in single hospital in US: 32%-39% measured over 3 year period<sup>2</sup>
     Largest single risk factor: obesity/ higher BMI<sup>1,2</sup>
- Prevention & Management<sup>3</sup>
  - Weight loss (including surgical approaches), even moderate is beneficial
     Structured skin care regimen: cleanse and dry thoroughly (air dry), multiple topical agents evaluated, most recommend avoiding ointments ("no grease in the crease")
  - Disposable or reusable products placed in skin fold with or without antimicrobial Disposable on reusable products placed main for which with properties, focus on wicking versus adborbency 1. Komer J et al. International Journal of Namig Studies 2020;10:103487, 2. Amold Long M. Johnson E. Journal of Wand Station and Continence Namig 2019;48(3): 2016. 3. Gray M. Bits DZ, McNichol L J Wound Ostony Continence Naming 2022; 49(2):14351. WOCNext

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#### L24.A2: Incontinence Associated Dermatitis • Moisture Source: Fecal matter/stool<sup>1</sup> Chemical content: highly variable based on dietary consumption stool \_ consistency Water consistent in "formed stool" (Bristol categories 3-4): 75%; much higher in categories 5-7 most relevant are enzymatic contents (lipases and proteases (active in higher $\ensuremath{\mathsf{pH}}$ ranges) pH range: 6.1-7.9 (as high as 9.2 in study 428 stool samples from 132 critically ill adults<sup>2</sup>; values higher than 7.5 create inflammation without additional factors Biome/bioburden: comparatively high; coliform bacteria and microorganisms thrive in higher pH ranges WOCNext

1. Gray M, Bliss DZ, McNichol L J Wound Ostomy Continence Nursing 2022; 49(2):143-51. 2. Osuka A et al. Critical Care 2012;16(4):R119.

## L24.A2: Incontinence Associated Dermatitis

#### Moisture Source: Urine

- Chemical content
  - >95% water; numerous electrolytes sodium, potassium, variable amount of ammonium (NH\_4^+), creatinine, etc.
- pH range: 5.5-7.0; more alkaline with dehydration, bacteriuria or others with ammonium splitting pathogens (Pseudomonas, Klebsiella, Proetus species)
- Biome/bioburden: complex biome present in all (urine is not sterile), asymptomatic bacteriuria endemic on adults females and males, incidence rates increase with age

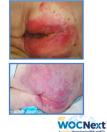
Gray M, Bliss DZ, McNichol L J Wound Ostomy Continence Nursing 2022; 49(2):143-51.

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## L24.A2: Incontinence Associated Dermatitis

- · Clinical Manifestations
  - Irritation and inflammation of skin exposed to urine or fecal matter; indistinct borders, partial thickness skin loss (erosion), prevalence of erosion versus inflammation alone not known, evidence of candidiasis in some

 Symptoms: burning pain, itching, often interferes with sleep



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## L24.A2: Incontinence Associated Dermatitis

- Epidemiology & Pathophysiology
  - Variable: 1.5% 20% in acute care, up to 46% in critically ill patients, 3.1% to 6.5%. In long-term care, 52% of individuals with fecal or dual incontinence (community dwelling adults)
- Prevention & Management
  - Little clear distinction between preventive strategies and treatment
  - Structures skin care regimen: cleanse, apply skin protectant
  - Divert, absorb or treat underlying incontinence

Gray M, Bliss DZ, McNichol L J Wound Ostomy Continence Nursing 2022; 49(2):143-51.





#### L24.A9 Irritant Contact Dermatitis due to friction or contact with other specified body fluids Irritant contact dermatitis due to friction or contact with body fluids, • unspecified WOC nurses' role is to **determine the nature of the skin damage** enabling coders to convert this "unspecified" code to a more specific code based on your evaluation and ultimately justifying payment for resources need for appropriate management - Assessment of MASD requires the following: Recognition of moisture as the primary cause of the skin damage (frequent alternatives are pressure, friction) Identification of the moisture source and its likely impact on the skin ("moisture plus"), location and severity Evaluation of the underlying causes that exposure to the bodily fluid led to MASD

Gray M, Bliss DZ, McNichol L J Wound Ostomy Continence Nursing 2022; 49(2):143-51.
 Gray M et al. J Wound Ostomy Continence Nursing 2011; 38(3):233-41.

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#### L24.A9 Irritant Contact Dermatitis due to friction or contact with other specified body fluids

 Signs of contact dermatitis are present and relate to **friction** (a force created by the rubbing of the skin surface against another surface (other skin or bed linens, for example) or another body fluid that can be identified and associated with the dermatitis •



If the contact dermatitis is due to a body fluid listed in one of the new codes, the new code should be used instead

Example of ICD-10 code L24A9: Irritant contact dermatitis due to friction or contact with other specified body fluids (in this case, wound drainage) Bliss DZ, McNichol L, Cartwright D, Gray M. Practice Alert: New ICD10 Codes for MASD. Journal of Wound, Ostomy and Continence Nursing 2022; 49(1): 15-19.

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#### L24.B0 Irritant contact dermatitis related to unspecified stoma or fistula

- Signs of contact dermatitis are present but the type of stoma (surgically created opening) or fistula (abnormal opening) with which the dermatitis is associated is not specified
- There may be more than one stoma and/or fistula near the location of the contact dermatitis and the one associated with the contact dermatitis cannot be determined
- WOC nurses' assessment will focus on stoma type, anatomic location of fistula . tract, character of effluent and other factors to determine a more specific diagnosis

Example of ICD-10 code L24B0: Irritant contact dermatitis related to unspecified fistula WOCNext

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## L24.B1 Irritant Contact Dermatitis related to digestive stoma or fistula

- Irritant contact dermatitis due to digestive stoma or fistula occurs when the skin is
  exposed to secretions from the gastrointestinal tract leading to erythema and local irritation.
- Contents of stomach and small bowel comprising masticated food mixed with a variety of gastrointestinal secretions including bile-which is rich with lipases, pancreatic enzymes containing proteases, amylase and additional digestive enzymes

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- the pH of the skin is 5.5



pH of stomach contents is highly acidic (1.5-3.5), then becomes more alkaline in the small intestine (6-7.4). The colon and rectal pH is approximately 6.7



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Example of ICD-10 code L24B1: Irritant contact dermatitis related to digestive stoma (i.e., gastrostomy)



Example of ICD-10 code L24B1: Irritant contact dermatitis related to digestive stoma

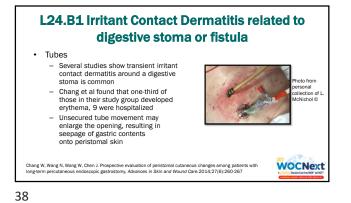
### L24.B1 Irritant Contact Dermatitis related to digestive stoma or fistula

- · Clinical manifestations
  - Clinical manifestations
     Erythema, erosion of affected skin adjacent to the stoma or fistula, partial thickness skin loss with irregular borders, serous exudate and sensations of itching, burning and pain.
     Prolonged exposure to effluent can further ande tissue can further erode tissue resulting in full thickness skin loss with increased serous exudate and bleeding



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## L24.B3 Irritant Contact Dermatitis related to fecal or urinary stoma or fistula

- Occurs when the skin is exposed to fecal or urinary effluent from a surgically created ostomy or from a fistula connecting the bowel or urinary system to the skin or open abdomen
- Presentation and likelihood varies based on characteristics of effluent, pH, and the microbiologic biome .
- Other factors predisposing a person to irritant contact dermatitis •
  - Prolonged exposure to irritant
     Pouching system for which aperture does not match stoma

  - Inadequate adhesion

Example of ICD-10 code L24B3: Irritant contact dermatitis related to fecal fistula

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### L24.B3 Irritant Contact Dermatitis related to fecal or urinary stoma or fistula

- Prolonged exposure? Who? Our patients? •
  - People who extend their pouch change frequency for economic or other reasons are at increased risk
  - are at increased risk Anecotal reports of bedside staff unfamiliar with pouching stomas using tape to seal in the leakage rather than change a leaking pouching system are widely circulated Alkaline urine has been shown to provoke inflammation of the peristomal skin in the absence of other factors The presence of crystals or peristomal skin due to precipitation of saits raises the likelihood of irritant contact dermatitis



Photo from personal collection of L. McNichol ©



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# L24.B3 Irritant Contact Dermatitis related to fecal or urinary stoma or fistula

Clinical Manifestations

- Clinical Manifestations

   Erythema, maceration, erosion of affected skin adjacent to the stoma or fistula, serous exudate and bothersome symptoms such as itching, burning and pain
- Papillomatous dermatitis, a thickening of the peristomal epidermis that appears as warty, white and gray may exist, along with maceration and the formation of crystals with urinary stomas



## L24.B3 Irritant Contact Dermatitis related to fecal or urinary stoma or fistula

Prevention and Management

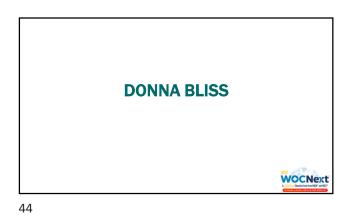
 Properly size and fit ostomy or fistula pouching systems
 Teach changing of ostomy or fistula pouching system prior to leakage or immediately upon realizing leakage.

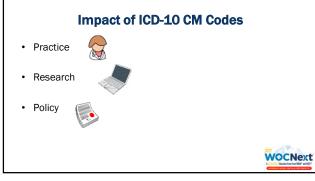
 Anticipate stoma size changes

- Anticipate scinna size changes
   Introduce pouch features such as
   convexity
   enhanced barriers with additives
   supportive ostomy products such as belts or skin barrier rings
   to enhance seal, increase predictability of wear time and lessen likelihood
   features
  - of leakage

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## ICD-10 CM Codes and You

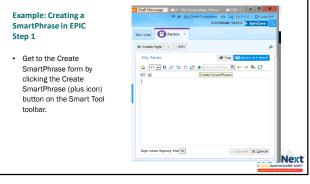


#### For WOC Nurse

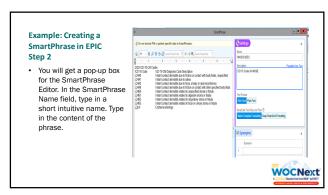
- Use ICD-10 CM codes regularly in EHR documentation, professional communication, presentations, publications
- More specific identification of IAD source
   Supports role/significance of WOC nurse expertise
  - $\circ\;$  Facilitates education and consultation to staff nurses and patients
  - Informs professional colleagues who code
  - Next steps of task force



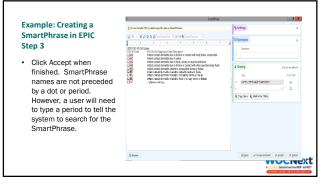
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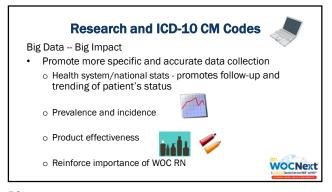


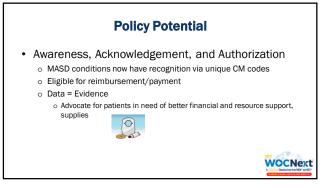
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## **Take Home Messages**

- There are new ICD-10 CM codes in US for MASD conditions
   Due to WOCN Society advocacy
- These codes have potential for a major positive influence in practice, research, and policy re: MASD conditions
- WOC nurses are essential to contribute to the impact of these codes
  - Learn and use the terminology

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## **REFERENCES & RESOURCES**

Gray M, Bliss DZ, McNichol L. Moisture-Associated Skin Damage: An Historic Step Forward. J Wound Ostomy Continence Nursing 2021; 48(6): 581-3.

Biss DZ, McNichol L, Cartwright D, Gray M. Practice Alert: New ICD10 Codes for MASD. J Wound Ostomy Continence Nursing 2022; 49(1): 15-19.

Gray M, Bliss DZ, McNichol L. Moisture-Associated Skin Damage. Expanding and Updating Practice Based on the Newest ICD-10-CM Codes. J Wound Ostomy Continence Nursing 2022;49(2):143-151.

McNichol L, Bliss DZ, Gray M. Moisture Associated Skin Damage: Expanding Practice Based on the Newest ICD-10 CM Codes for irritant contact dermatitis associated with digestive secretions and fecal or urinary effluent from an abdominal stoma or enterocutaneous fistula. J Wound Ostomy Continence Nursing 2022; 49(3): in press.

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