Clinical signs and symptoms of diaper dermatitis in newborns, infants, and young children:

Ann Marie Dunk1,3,4, Margaret Broom2,3, Anika Fourie4, Dimitri Beeckman5,8

Background
Diaper dermatitis (DD) is a common dermatologic problem in newborns, infants, and young children. DD is an inflammatory skin condition that ranges from mild (persistent redness) to severe (destruction of epidermis) and secondary infection. Prevalence has been estimated to between 25% and 50% depending on age, and has been recognised the DD affects most infants at least once. The causative factor is the action of the proteolytic enzymes found in faecal matter and the urea present in urine which converts to ammonia by the action of faecal bacteria with urease activity.

Objective
The aim of this scoping review was to explore the literature for descriptive words to define the clinical signs, symptoms, and characteristics, including anatomical locations and assessment scales or tools in the newborn, infants and young children population who have been diagnosed with Incontinence Associated Dermatitis (IAD).

Method
A systematic review process utilising PRISMA guidelines was conducted using advanced search techniques to analyse the terms from the database thesauri and key words. Data bases including Ovid MEDLINE® and Epub Ahead of Print, in -Process & Other Non-Indexed Citations, Daily and Versions® were searched from 1946-2021. Cochrane Handbook Searching for the selecting studies were used as a guide and as best practice to conduct the search. Rayyan® software assisted in the independent research reviews.

Search concept and strategy

| Concept | OR/AND | PubMed Search
|---------|--------|----------------|
| Incontinent urinary or incontinence faecal | 1 | Infant OR newborn OR Child 2-5 years
| "incontinent faecal" | 2 | "incontinence urinary"
| "incontinent faecal" | 3 | "incontinent urinary"
| Validation studies weights and measure | 4 | Infant OR newborn OR Child 2-5 years

Results
551 publications originally identified 55 full text publications were examined and 21 met the inclusion criteria. A wide range of descriptors used in the literature for DD supports the need for a clearer approach to report the signs and symptoms and the severity of DD.

Prisma Flow Diagram

Conclusion
Finding identified gaps within the literature, both in recoding signs and symptoms of DD, and features such as erythema, skin breakdown with papules, pustules, bullae, wetness, infection, inflammation and anatomical location and pain. There is a need to develop a robust methodological tool to bridge the gap and link a common terminology on both signs and symptoms to support diagnosis of the severity of DD.

References