The CMUNRO SCALE® risk assessment mnemonic is the first action in developing a surgical patient’s pressure injury prevention plan. The CMUNRO SCALE is an acronym developed for nurses to become accustomed to the risk factors evaluated in the Munro Pressure Ulcer Risk Assessment Scale for Perioperative Patients—Adults© (Munro Scale©). This simple method consists of the identification of patient specific and perioperative risk factors for perioperative nurses.

The CMUNRO SCALE facilities a mnemonic strategy to learning perioperative risk factors. The letters of each key word converts the information in the Munro Scale into more manageable information. Use of the CMUNRO SCALE provides the sequential steps to correctly and efficiently perform a risk assessment every time while reducing the perioperative nurse’s reliance on memory. To do it right every time, implementing the mnemonic into the nurse’s routine facilitates learning about the patients for which care is being provided. Giving nurses access to the CMUNRO SCALE mnemonic bridges the broad amount of information in the Munro Scale requiring less working memory.

The CMUNRO SCALE

The CMUNRO SCALE is a mnemonic that retains validated content of all phases of the Munro Scale but lacks the calculations, scoring and predictive components. The assessments for the respective perioperative phases are equivalent. The purpose of the CMUNRO SCALE is to teach and guide nurses to methodically perform a pressure ulcer risk assessment. Its orderly approach supports nurses in communicating and documenting such risk assessments.

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<tr>
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<th>PREOPERATIVE</th>
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<td>Co-morbidities</td>
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<td>M</td>
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The CMUNRO SCALE© is a tool that helps nurses identify and prioritize patient-specific and perioperative risk factors for pressure ulcer prevention. It is a mnemonic that simplifies the complex information in the Munro Scale, allowing nurses to perform risk assessments systematically and efficiently, thereby reducing reliance on memory and facilitating better patient care.
The acronym CMUNRO SCALE® displays all of the risk factors included in the Munro Scale and in the same progression of the surgical experience. This is a quick and easy guide to prompt risk assessment and direct nurses to their patient’s risk factors spanning the preoperative, intraoperative and postoperative phases of care. The content of the CMUNRO SCALE is the validated Munro Scale risk factors listed by phase of care. The difference between the CMUNRO SCALE and the Munro Scale is the latter has calculations for a level of risk which produces a cumulative score and is predictive in nature. The CMUNRO SCALE is a template for performing an individualized risk assessment, communicating the risk factors identified to the next phase of care and documenting the assessment and communication of risk factors identified in the electronic health record. A pressure injury prevention plan will follow the revealing of risk factors.

Assessing Risk Factors

The preoperative risk assessment appraises six risk factor categories that are the first word and six letters of the CMUNRO SCALE acronym.

The C of CMUNRO includes:

• C is for co-morbidity risk factors.
• C represents current health status.

The patient’s co-morbidities are indicators of compromised skin integrity, insufficiency of defense mechanisms, failure of function of bodily organs to resist tissue breakdown and disease processes that affect tissue perfusion and tissue tolerance leading to potential risk of pressure injury.

Behaviors and lifestyle interact with the health condition of the patient and their response to anesthesia and surgery. Co-morbidities and current status vary for each patient and the nurse must understand the prominence of each health issue. The disease status may change for the same patient from one procedure to another when exposed to multiple surgeries at different intervals.

Smoking, respiratory diseases, hypertension/hypotension, cardio-vascular diseases, and diabetes are risk factors indicated in the literature to contribute to pressure injury. The prior history of or the existence of a pressure injury would increase the possibility of a new injury to develop. Alcoholism, cancer and stroke may be among some contributing factors.

Evaluate the current health status of each co-morbidity. Consider the presence of a newly diagnosed condition, the patient’s management and compliance of treatments and length of time living with the disorder(s). The well-being and healthiness of the patient reflects the standing and presentation of the risk factors.

The remaining preoperative risk factors are listed and represented in MUNRO:

• M represents the evaluation of the patient’s mobility status and independence.
• U poses the question of the patients’ age and if it is under 60 (over 60 is higher risk).
• N is for the evaluation of the patient’s nutritional condition and NPO status.
• R presents the question related to the right weight for the patient to recognize if there was a recent weight loss.
• O represents the inquiry of the BMI to determine if the patient is over-weight.

The second word symbolizes each of the intraoperative and postoperative risk factors.

The first four letters of the second word SCALE (SCAL) reflects the intraoperative risk assessment. These letters activate the evaluation of seven risk factor categories from the Munro Scale:

• S sets in motion the appraisal of systolic blood pressure baseline and fluctuation throughout surgery and the surface the patient has been placed for the surgical experience.
• C represents core body temperature signaling the impact of hypothermia and pressure injury risk.
• A refers to anesthesia type and the American Society of Anesthesiologist (ASA) physical classification.
• L is paired with the lying position of the patient during the surgery and the presence of moisture that the patient may be lying on as a result of causes such as irrigation use throughout the surgery.
The postoperative risk assessment evaluates two risk factor categories and are shown in the last two letters of SCALE (L and E):

- **L** is also representative of total length of stay (LOS) for the patient in the perioperative area from pre-operative to post-operative periods.
- **E** is the indicator for estimated blood loss from both the intraoperative period combined with sanguineous fluid accounted for in the post anesthesia care unit.

This framework is a systematic approach to a thorough identification of pressure injury risk factors. Documenting use of the CMUNRO SCALE is evidence of the performance of a risk assessment and a model of practice. The CMUNRO SCALE is a teaching tactic to familiarize perioperative nurses with the risk factors in the Munro Scale. Perioperative nurses caring for a patient must be familiar with the risks associated with skin and tissue breakdown. To discern which patients are at risk, a personal interview should be coupled with a comprehensive review of the electronic health record (EHR). Knowing the patient and the perioperative setting risk factors, by means of the CMUNRO SCALE, can prompt nurses to plan and implement the appropriate preventative measures to minimize the risk of pressure injury development.

**How to use the CMUNRO SCALE**

The use of the CMUNRO SCALE is a transformational strategy to connect learning the perioperative risk factors to the letters in the key words. This will streamline realizing how to assess patients for pressure injury risk.

- Create a lanyard in portrait orientation with the CMUNRO SCALE lanyard template provided.
- Personalize the education to specify details of implementation
  - location in EHR and language to document,
  - list of co-morbidities in the Munro Scale,
  - and next steps in a pressure injury prevention plan.
- Print and distribute to perioperative and in-patient nurses.

Each letter of CMUNRO is a cue for the preoperative nurse to assess, document and communicate the presence of risk factors that contribute to the development of a pressure injury for the patient. Analyze the information learned about the patient during the health history and physical assessment. Consider the over-all health status of the patient. Ensure the co-morbidities (risk factors) and associated status are documented in the EHR where deemed appropriate. Present the information during the hand-off communication to the intraoperative nurse. Document by whom the preoperative pressure injury risk assessment was performed using the CMUNRO SCALE and to whom the findings of the assessment was communicated.

SCAL prompts the intraoperative nurse to assess, document and communicate the presence of risk factors that contribute to the development of a pressure injury for the patient. Analyze the information learned about the patient at the completion of the surgical event. Consider the advanced risk status of the patient. Ensure the risk factors and associated status are documented in the EHR where deemed appropriate. Present the information during the handoff communication to the postoperative nurse. Document by whom the intraoperative pressure injury risk assessment was accomplished using the CMUNRO SCALE and to whom the findings of the assessment was communicated.

The final two letters LE prods the postoperative nurse to assess, document and communicate the presence of risk factors that contribute to the development of a pressure injury for the patient. Analyze the information learned about the patient during the recovery phase of the surgical event. Consider the advanced risk status of the patient. Ensure the risk factors and associated status are documented in the EHR where deemed appropriate. Present the information during the hand-off communication to the inpatient unit nurse. Document by whom the postoperative pressure injury risk assessment was completed using the CMUNRO SCALE and to whom the findings of the assessment was communicated.

Use of the CMUNRO SCALE for any other purpose would require copyright permission. Please send copyright permission requests to Cassemdra A. Munro at munroconsulting@yahoo.com.

**CONTINUE FOR CMUNRO SCALE LANYARD PRINTING >**
### CMUNRO SCALE

**Print Instructions**

Set printer to landscape and insert into printer with slot side to left.

Feed this end first.

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**CMUNRO SCALE**

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**Co-morbidities/Diseases**

- Smoking
- Hypertension
- Vascular/Renal
- Cardio-vascular
- Peripheral-vascular
- Asthma
- Pulmonary
- Respiratory
- History of or existing Pressure Injury
- Diabetes all types

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