



## Nutritional Management of Adult Burns patient throughout Australia and New Zealand

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### Background:

Medical nutrition therapy is an essential component of multidisciplinary management of burns patients. The ANZBA Allied Health Practice Guidelines provide evidenced-based standards, however, it isn't known if there is consistency throughout Australia and New Zealand. Comparison of current nutrition support practices can enhance knowledge-sharing, support consistency of care and inform research.

### Aim:

- Identify the similarities and differences of burns nutritional care throughout Australia and New Zealand.
- Benchmark clinical practice and identify areas for future investigation.

### Methodology:

- Purposive sampling of Dietitians at 11 adult burns units
- Online survey using Survey Monkey developed for this purpose

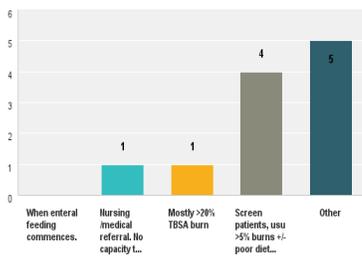


## Results

9 responses (81% RR)  
 Size of units: 2-18 beds (excluding ICU)

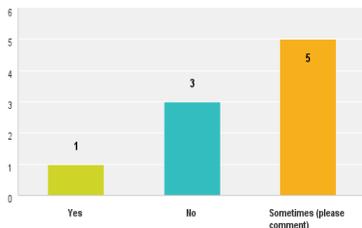
### Assessment

1. Which statement best describes your referral method for adult burns patients?



Overall, there was inconsistency in the Dietetic referral method.

2. Do you routinely complete Subjective Global Assessments (SGA's) on adult burns patients?

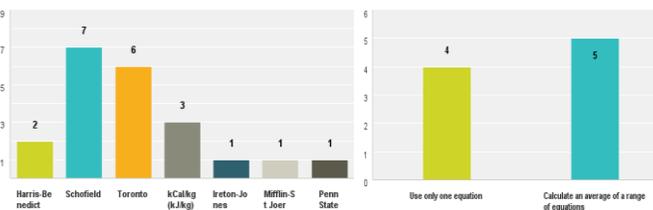


Subjective Global Assessment can be useful at times but Dietitians identified limitations to use in adult Burns patients.

3. Do you routinely use a handgrip dynamometer on adult burns patients?

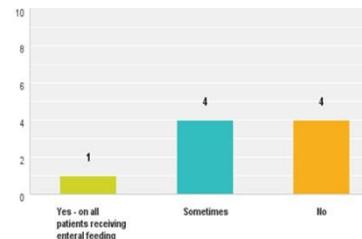
- 0/9 Dietitian used handgrip strength but many Dietitians were very curious to see if anyone else does and how useful it is.

4. What predictive energy equation/s do you use to calculate patients energy requirements (select all that apply)?



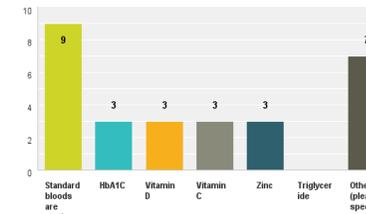
The Schofield and Toronto formulae were the most common equations used for estimating energy requirements. 5/9 Dietitians used more than one equation, then calculated an average.

5. Is indirect calorimetry conducted on adult burns patients either in intensive care or on your burns unit?



5/9 burns units use indirect calorimetry either always or sometimes if patient receiving enteral feeding.

6. If a patient has a >20% TBSA burn, does your ward/unit normally measure any special biochemical blood parameters (may choose more than one)?



### Interventions

#### Vitamins Supplementation

- 8/9 routinely give multi-vitamins for TBSA > 20%
- All give single nutrients (Vit C, Zinc, Folic acid) (7/9 yes, 2/9 sometimes)
- IV vitamins and minerals not used in 5/9 but yes or sometimes in 4/9

#### Enteral feeding

- 100% commence enteral feeding within 24-48hrs of admission >20% TBSA
- Nutrison protein plus multifibre most common feed used in 7/9 units
- 100% do not use low carbohydrate feeds if BGLs elevated
- 8/9 routinely use ready to hang sets
- All adjust for overweight or obesity (3/9 if BMI >24.9, 6/9 if BMI >30, )
- 6/9 sometimes add protein powder flushes
- Most (7/9) recalculate requirements to consider donor sites at least sometimes

#### Parental Nutrition

- Not used in past year in 5/9 burns units/burns patients in ICU.
- Of those that used parenteral nutrition, range =1-10 patients/year.

#### Immunonutrition

- Glutamine not used in any burns units, arginine only at 1 unit.

#### Discharge

- 5/9 Dietitians provide discharge nutritional supplements if clinically indicated
- Majority (7/9) follow-up patients post d/c if required

### Conclusion:

The study showed many similarities in the nutritional management of burns patients however variations occur. Ongoing research is required, for continued development of guidelines for assessment, intervention and monitoring of adult burns patients.

### Recommendations:

- Development of a burns-specific nutrition screening and referral tool to better streamline dietetic referrals.
- Evidence-based guidelines on vitamin supplementation in adult burns patients.
- More detailed practice guidelines on measurement of routine biochemical blood parameters e.g Vitamin D, HbA1C, .
- Research into whether handgrip strength may be a useful measure of adequacy of nutrition support.

