Hypermetabolism in burns patients results in an elevation of resting energy expenditure (REE) up to twice normal levels. Indirect calorimetry (IC) is considered the gold standard for measuring REE; however, the use of predictive equations remains common practice where IC is unavailable.

**AIM**

To compare the accuracy of three predictive equations used to estimate energy expenditure (EE) to IC measurements.

**METHOD**

Trained dietitians performed IC using the Quark RMR™ device (Cosmed, Rome, Italy). Values obtained were compared to estimated EE calculated by the Toronto Formula², the Schofield Equation with added stress factor³ (based on total body surface area (TBSA) burn) and the Harris Benedict equation⁴ (using same stress factor).

Table 1 data is reported as median (IQR), n (%), or mean ± sd.

**RESULTS**

A positive correlation was observed between REE determined through IC and the Schofield Equation, accounting for 44% of the variance.

**CONCLUSION**

Despite the small sample size, the results support our current practice which is to attempt IC on all critically ill burns patients. In the absence of IC, energy requirements are based on the Schofield Equation using an appropriate stress factor to account for the hypermetabolic response to injury.

**References:**