

## Digital Planimetry Results in More Accurate Wound Measurements: A Comparison to Standard Ruler Measurements

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### Abstract

#### *Background:*

Cutaneous wound measurements are important to track the healing of a wound and direct appropriate therapy. The most commonly used method to calculate wound area is an estimation by multiplying the longest length by the widest width. Other devices can provide an accurate and precise measurement of the true area (TA). This study aim was to compare wound areas calculated by computerized planimetry with standard area estimation by multiplying the longest length by the widest width ( $l \times w$ ).

#### *Methods:*

We reviewed the wound records of 10 patients with circular or oval wounds and estimated the area with the  $l \times w$  method. We compared this with the TA obtained by a specialized planimetric camera.

#### *Results:*

Average wound size was 4.3 cm<sup>2</sup> by  $l \times w$  estimation and 3 cm<sup>2</sup> by TA calculation. We found the  $l \times w$  method overestimated wound area an average of 41%.

#### *Conclusions:*

Standard, manual ( $l \times w$ ) measurement of cutaneous wounds inaccurately overestimates wound area by roughly 40%.

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**Abbreviation:** (TA) true area

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