

Parkland Formula

The Parkland formula is used to calculate the amount of resuscitation fluid required in burn patients in the first 24 hours to ensure they remain hemodynamically stable. The amount of fluid in the first 24 hours is calculated by multiplying the total body surface area percentage burned (TBSA%) times the patient's mass in kg, times 4.



PLAY PICMONIC

Burn victims

Burned victims

The Parkland Formula is used to calculate the amount of fluid given to burn victims.

24 hours

24 hour clock

This formula is used to calculate the amount of fluid given in the first 24 hours.

TBSA% x Weight x 4 = Fluids

TBSA %

TBSA Agent

TBSA %, or total body surface area % burned, is approximated using the rule of 9's. This approximate percentage is then used in the Parkland formula.

x Weight (kg)

Kg Scale

The TBSA % is then multiplied against the patient's weight in kg.

x 4

(4) Fork

The patient's TBSA% x the patient weight in kg is then multiplied by 4.

= Fluid Requirement (in first 24 hrs)

Saline fluid

By multiplying the TBSA % x weight in kg x 4, we are able to calculate the burn victim's fluid requirement in the first 24 hours.

Fluids in first 8 hours

1/2 of fluid given in first 8 hours

Half of fluid drained from 8-bag

Of the total fluid which is calculated, the first $\frac{1}{2}$ of the calculated fluid requirement is administered in the first 8 hours. The next $\frac{1}{2}$ is then given over the period of 16 hours.