Major Burn - Initial 24 hours Fluid Resuscitation Orders for Adults (REGIONAL)
(items with check boxes must be selected to be ordered)

Date: __________________________  Time: __________________________

ADMISSION INSTRUCTIONS:
Complete BTHA - Burn Injured Patient Admission Orders (VCH.VA.PPO.200) **OR** ICU Burn Injured Patient Admission Wound Care Orders (VCH.VA.PPO.779)

FLUID RESUSCITATION GUIDELINES:

Initiate fluid resuscitation orders for:
Patients 65 years of age or older and with burns greater than or equal to 10% TBSA
Patients younger than 65 years of age and with burns greater than or equal to 20% TBSA

Fluid resuscitation estimates are based on the patient's body weight and the total body surface area burned, calculate using the Lund-Browder Chart

Fluid resuscitation, regardless of estimated needs, should be titrated to maintain urine output goals. Administer the least amount of fluid necessary to maintain adequate organ perfusion.

Automated infusion devices for IV fluids are recommended. Avoid IV boluses.

Increased volume requirements can be anticipated in patients with full thickness injuries, inhalation injury or a delay in resuscitation

For delayed resuscitations, use clinical judgement to calculate the initial IV rate and titrate according to urine output

Date of Burn: ______________________  Time of Burn Injury: ______________________ hr

Patient’s Weight: ______________________ kg  Time Elapsed since Time of Burn: _________ hr (s)

Fluids administered pre-hospital: ____________ mL
Percentage of Total Body Surface Area (TBSA) Burned: ____________ %

Calculate TBSA using the TBSA Burn Estimation chart:
http://www.phsa.ca/our-services-site/Documents/TBSA_Burn_Estimation_Chart.pdf

For VGH; use Burn Estimation chart (TBSA), BCHA.0014
https://v2.printsys.net/References/VCHHealth/VCHGroup/Static-Forms/BCHA.0014.pdf

INTRAVENOUS SOLUTION:

☐ Lactate Ringers
☐ Other: ____________________________________________

Prescriber’s Signature ____________________________  Printed Name ____________________________  College ID ____________________________
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RESUSCITATION FLUID CALCULATION

Administer half of the 24-hour total in the first 8 hours post burn injury and the remaining half in the next 16 hours.

The first 8 hour IV rate must take into consideration the fluid already administered and the hours that have elapsed from time of injury to time of resuscitation.

Estimated 24 Hour total IV Fluids:

\[ A = 3 \text{ mL} \times \frac{\text{kg}}{(\text{Patient's weight})} \times \frac{\% \text{TBSA Burned}}{\text{(% TBSA Burned)}} = \]

24 Hour Fluid Total:

\[ A = \text{_______________ mL/24 h} \]

Estimated first 8 hours IV rate:

Half of the 24 hour estimated fluids minus fluids already administered and divide by the remaining hours of the first 8 hours since the time of burn

\[ B = \text{Half of the estimated 24 hour total fluids} = A \div 2 = \text{________ mL} \]

\[ C = \text{Amount of fluids already administered} = \text{________ mL} \]

\[ D = 8 \text{ hours minus time elapsed since time of burn injury} = \text{_______ h} \]

First 8 Hour IV Rate:

\[ \frac{(B - C)}{D} = \text{________ mL/h} \]

\[ \frac{\text{_____ mL} - \text{_____ mL}}{\text{_____ h}} = \text{_______mL/h} \]

Estimated second 16 hours IV rate:

Half of estimated 24 hour IV fluids divided by 16 hours

Second 16 Hour IV Rate:

\[ B \div 16 = \text{_______________ mL/h} \]

\[ \frac{\text{______ mL}}{16} = \text{________ mL/h} \]
MONITORING

Fluid Resuscitation Titration:
Monitor urine output hourly. Volume to be administered should be continually titrated to avoid both under and over-resuscitation

- Document on the Major Burn Fluid Resuscitation Flowsheet (BCHA.0022)
  ([https://v2.printsys.net/References/VCHealth/VCHGroup/Static-Forms/BCHA.0022.pdf](https://v2.printsys.net/References/VCHealth/VCHGroup/Static-Forms/BCHA.0022.pdf))

In the first 8 hours:
Call the physician if IV rate is titrated 3 times or more
At 8 hours, if the IV rate is lower than the estimated 16 hour rate, continue with the lower rate

- **Urine output goal: 30 to 50 mL/hour**
  - If urine output is less than 30 mL/h x 2 consecutive hours: increase IV rate by 20%. Avoid IV boluses.
  - If urine output is greater than 50 mL/h x 2 consecutive hours: decrease IV rate by 20%

- **Electrical burns* urine output goal: 50 to 100 mL/hour**
  * Injury is a result of direct contact with high voltage, NOT burns sustained from electrical arc (flash) without direct contact.
  - If urine output is less than 50 mL/h x 2 consecutive hours: increase IV rate by 20%. Avoid IV boluses.
  - If urine output is greater than 100 mL/h x 2 consecutive: decrease IV rate by 20%

8 Hour Post-Burn Fluid Resuscitation Re-assessment:
RN will complete the 8 Hour re-assessment calculations on the Major Burn Fluid Resuscitation Flowsheet (BCHA.0022) and contact the physician if indicated.
At the end of the 24 hour fluid resuscitation, contact the physician for a maintenance IV rate

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Prescriber’s Signature ____________________ Printed Name ____________________ College ID ____________________
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