

Burn Navigator® Super User Training Guide



Super Users

Thank you for being a Super User!

Be sure to also review the basic
Burn Navigator Training Guide

Tablet Characteristics

- Rugged
 - High heat & humidity capable
 - Water & fluid resistant
 - **Can be used during debridement!**
- Battery Life
 - 6 hours
 - you can swap the battery without shutting down the system



The pre-hospital fluids are not used in the algorithms

A patient may have urine in the bladder from before the burn

The screenshot shows a mobile application interface with a black background and white text. At the top, there is a status bar with the following information: Patient ID: TRAINING, Weight:, TBSA:, HPB:, a battery icon, and the time 12:03. Below the status bar, the text "Enter fluids given until now:" is displayed. Underneath this text is a white input field containing the value "1,000" followed by "mL". Below the first input field, the text "Enter urine output until now:" is displayed. Underneath this text is a white input field containing the value "---" followed by "mL". At the bottom right of the screen, there are two buttons: "Back" and "Next".

However, these fluids are used in the graphs and the I/O Table

- Choose “Monitor only” mode for patients:
- <10 kg
 - <24 months old
 - Other conditions affecting urine output

Patient ID: TRAINING Weight: 9kg TBSA: HPB: 12:03

Select the patient protocol:

- Adult predictive algorithm**
Targets 30-50 mL/hr urine output
Up to 15% changes each hour
Recommended for most adults without gross myoglobinuria
- Custom protocol**
Target: 0.5 to 1.0 mL/kg 0.2 - 0.3 mL/hr UO
Limited to 10% changes each hour
Recommended for pediatric patients
- Monitor only**
No hourly recommendations
Provides resuscitation graphs and alerts
Protocol cannot be changed during resuscitation.

Back Next

We can use Monitor Only mode data to build future protocols

Patient ID: TRAINING Weight: 100kg TBSA: 60% HPB: 13 15:09

New Rate

Previous infusion rate: 750 mL/hr

Fluid type: Lactated Ringer's

Recommended rate: New rate: 650 mL/hr 13% ↓

No recommendations during Monitor only protocol.

Back Enter

Primary Fluid types:

The “Primary Fluid” is titrated up and down.

“Additional Fluids” are not titrated

The Primary Fluid could be an “albumin protocol”

Patient ID: TRAINING Weight: TBSA: HPB: 13:21

Select primary resuscitation fluid:

LR + Dextrose 5% ▼

- Lactated Ringer's
- LR + Dextrose 5%
- ($\frac{2}{3}$) LR + ($\frac{1}{3}$) Albumin 5%
- ($\frac{1}{2}$) LR + ($\frac{1}{2}$) Albumin 5%
- ($\frac{2}{3}$) LR + ($\frac{1}{3}$) FFP
- Normal Saline
- Plasma-lyte

Back Enter

Patient ID: TRAINING Weight: TBSA: HPB: 13:31

Select primary resuscitation fluid:

($\frac{2}{3}$) LR + ($\frac{1}{3}$) Albumin 5% ▼

Select initial rate formula:

Galveston Pediatric ▼

Recommended rate: Enter new rate:

338 mL/hr 338 mL/hr

LR	225	mL/hr
Alb 5%	113	mL/hr

Back Enter

Initial Formula:

Administrators can set the default starting formula

ABLS guidelines recommend 2 mL/kg/TBSA for most adult burns

Consider higher starting rates for:

- Electrical injuries (4 mL/kg/TBSA)
- Inhalation injuries

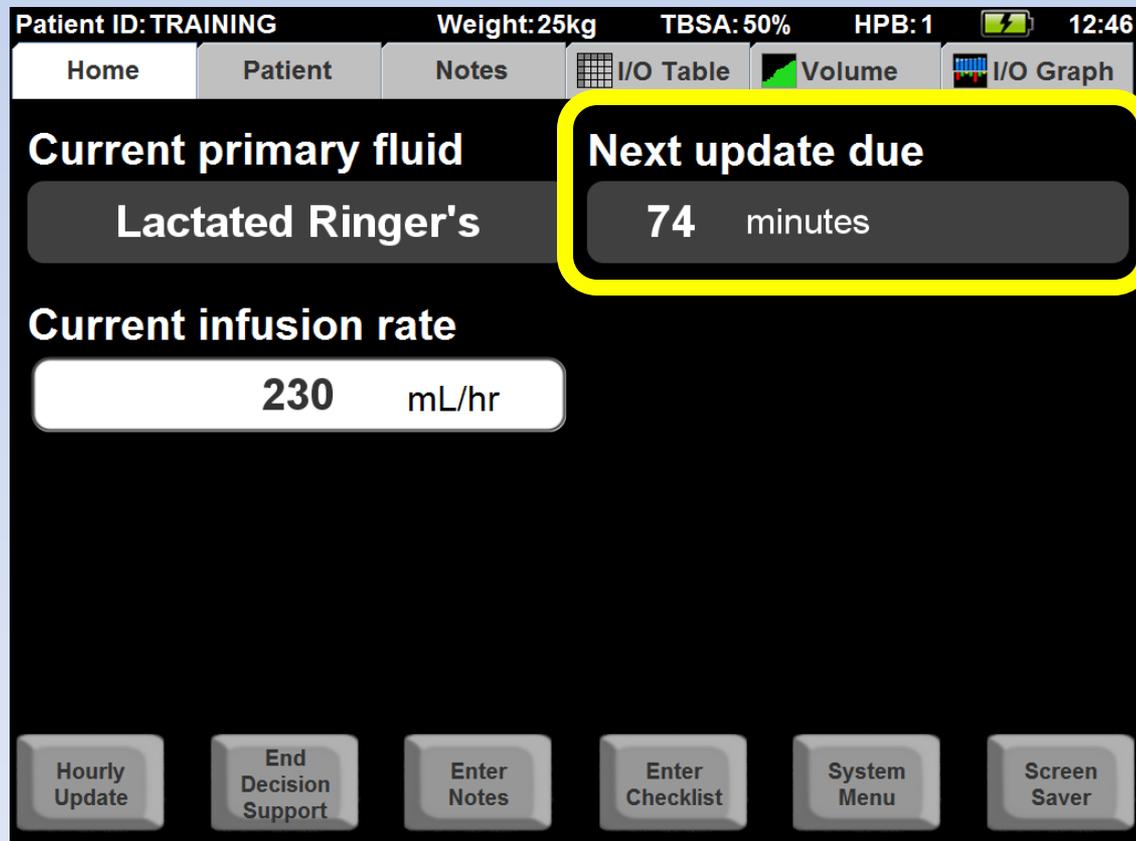
If a formula goes above 2,000 mL/hr, or below the minimum rate, Burn Navigator will recommend one of those limits instead.

The screenshot shows a mobile application interface for a patient named TRAINING. At the top, there are fields for Patient ID (TRAINING), Weight, TBSA, HPB, a battery icon, and the time (13:34). The main screen has a black background with white text. The first section is titled "Select primary resuscitation fluid:" and has a dropdown menu currently set to "Lactated Ringer's". The second section is titled "Select initial rate formula:" and has a dropdown menu currently set to "Galveston Pediatric". The dropdown menu is open, showing a list of options: "4 mL/kg/TBSA (Parkland)", "3 mL/kg/TBSA", "2 mL/kg/TBSA (Consensus)", "Rule of Tens", and "Galveston Pediatric". The "Galveston Pediatric" option is highlighted in blue. At the bottom right, there are two buttons: "Back" and "Enter".

This is just for the starting rate! Later recommendations are based on UO.

Fluid updates are due at the top of each clock hour (__:00), unless the last “To” time was 15 or less minutes ago

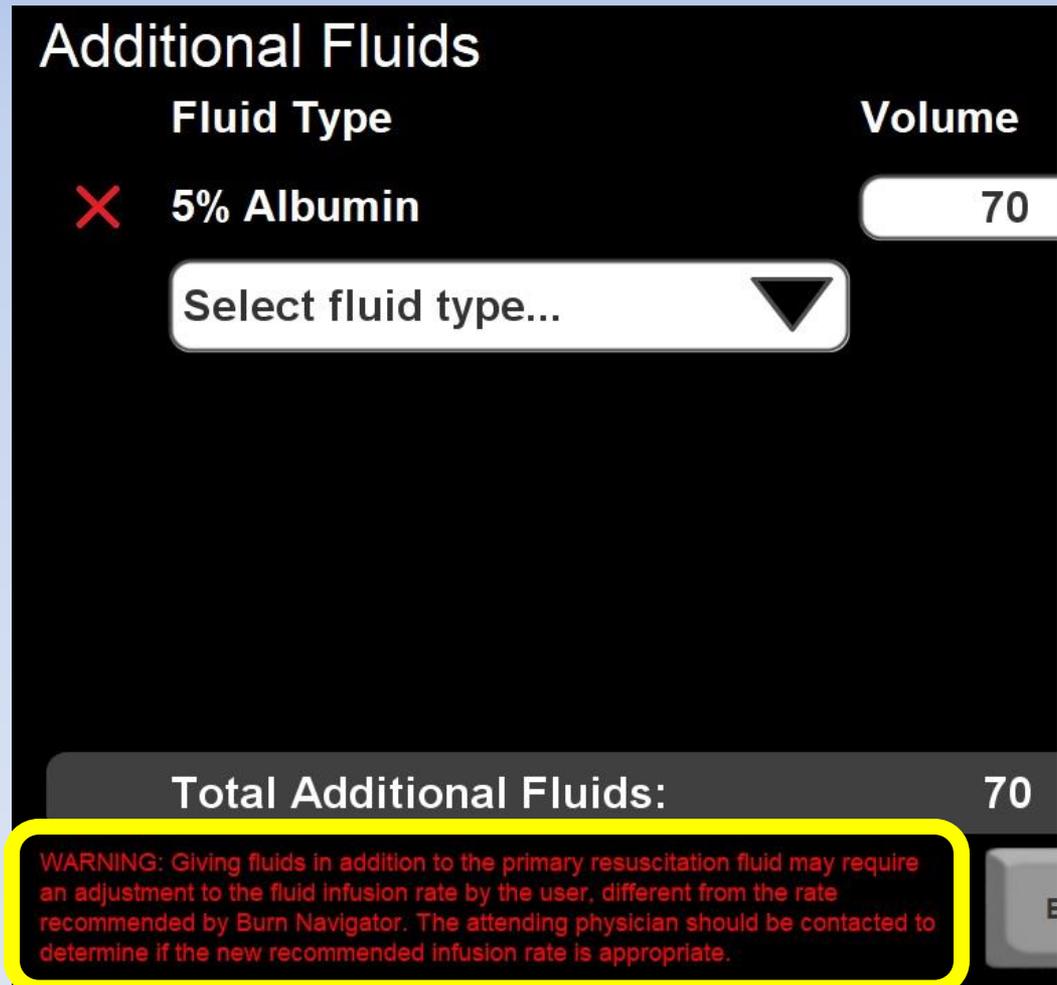
E.g., device started at 12:46, next update will be at 14:00



Additional Fluids

You'll see this warning message anytime additional fluids are given, because the algorithm doesn't take those fluids into account.

However, Burn Navigator will adjust down on LR if there is higher UO due to additional fluids!



Fluid Type	Volume
✗ 5% Albumin	70
Select fluid type...	

Total Additional Fluids: 70

WARNING: Giving fluids in addition to the primary resuscitation fluid may require an adjustment to the fluid infusion rate by the user, different from the rate recommended by Burn Navigator. The attending physician should be contacted to determine if the new recommended infusion rate is appropriate.

Patient on Pressors?

Patient ID: TRAINING Weight: 75kg TBSA: 55% HPB: 8  11:01

Safety Questions

Is patient hypotensive? Yes No

Is patient hyperglycemic? Yes No

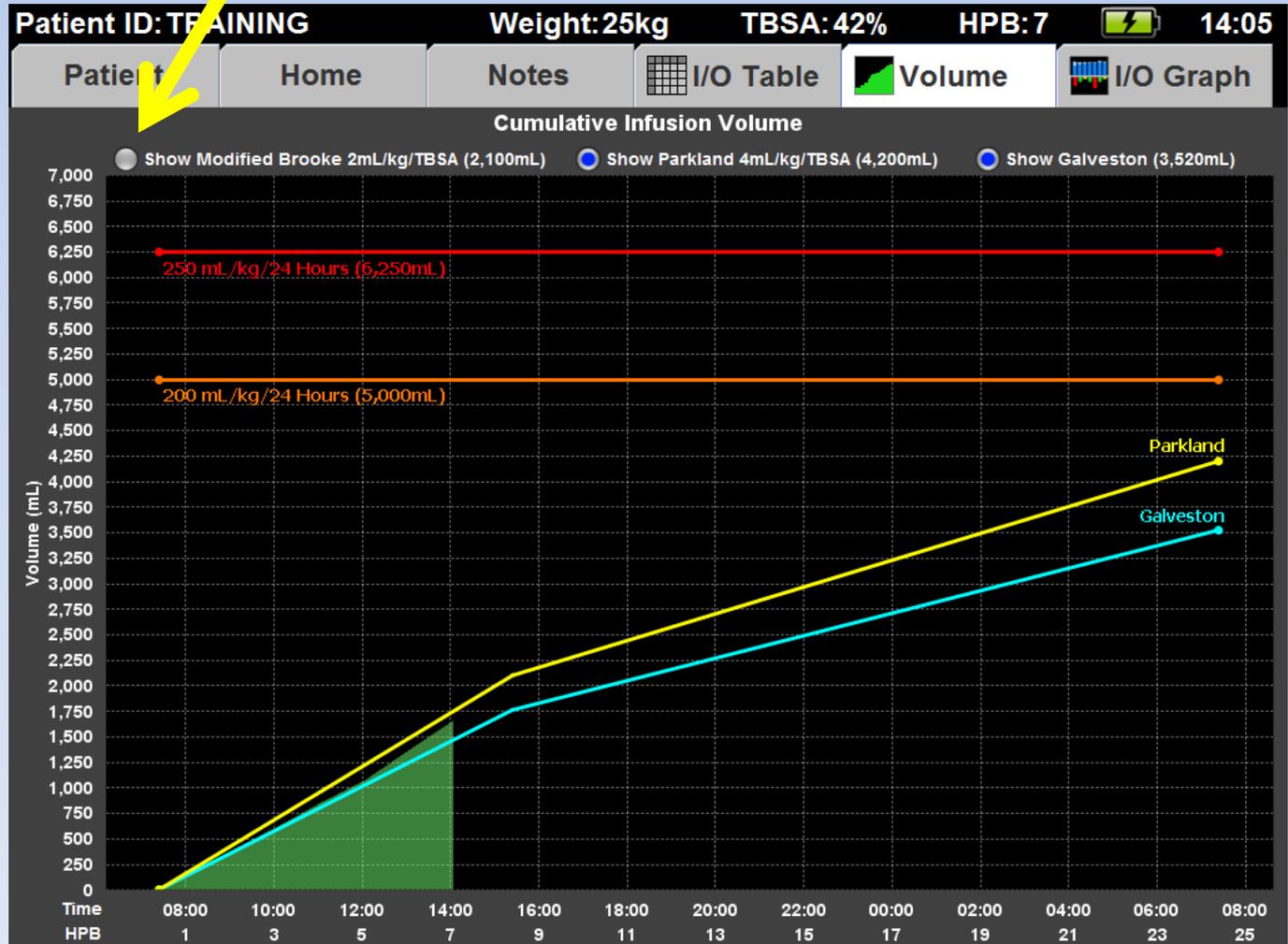
Is patient on pressors? Yes No

Is patient on diuretics? Yes No

If your patient is on pressors, ask the attending doctor whether you can wean the patient off pressors before reducing fluids

Volume Graph

Guidelines can be turned on or off here



The graph increments every minute based on the current rate

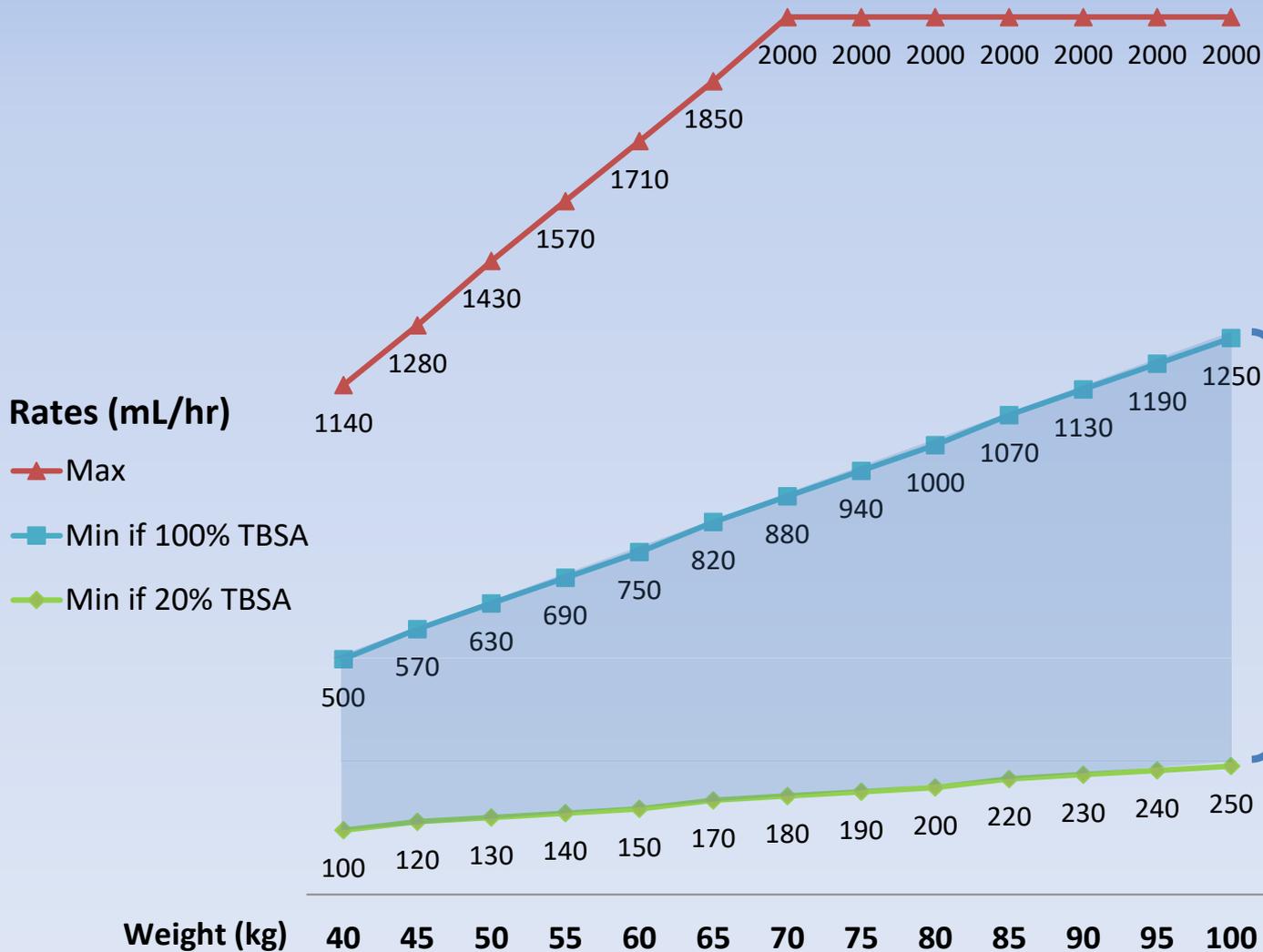
All fluids (with the exception of “Other Fluids” from the Additional Fluids section) are averaged over the time period of each update.

I/O Graph



Scroll buttons to see data beyond 24 hours

Recommendation Window First 8 Hours Post Burn



Max = 28.6 x kg
up to 2,000 mL/hr

Minimum recommendation depends on %TBSA

Applies to both Adult Predictive and Weight-based protocols

New Projection Safety

Patient ID: Weight: TBSA: HPB: 09:31

Security Clinical Fluids

Protocol General

Hourly Update Sound

Rec. Increase Cap mL/kg at 24hpb

Recommended rate: New rate:

mL/hr 0% mL/hr 0%

High 24 hour volume projected! Fluid increase not recommended.

Back

Enter

Projected 24 hour volume
252 mL/kg

Projected 24 hour volume
249 mL/kg

Projected 24 hour volume
99 mL/kg

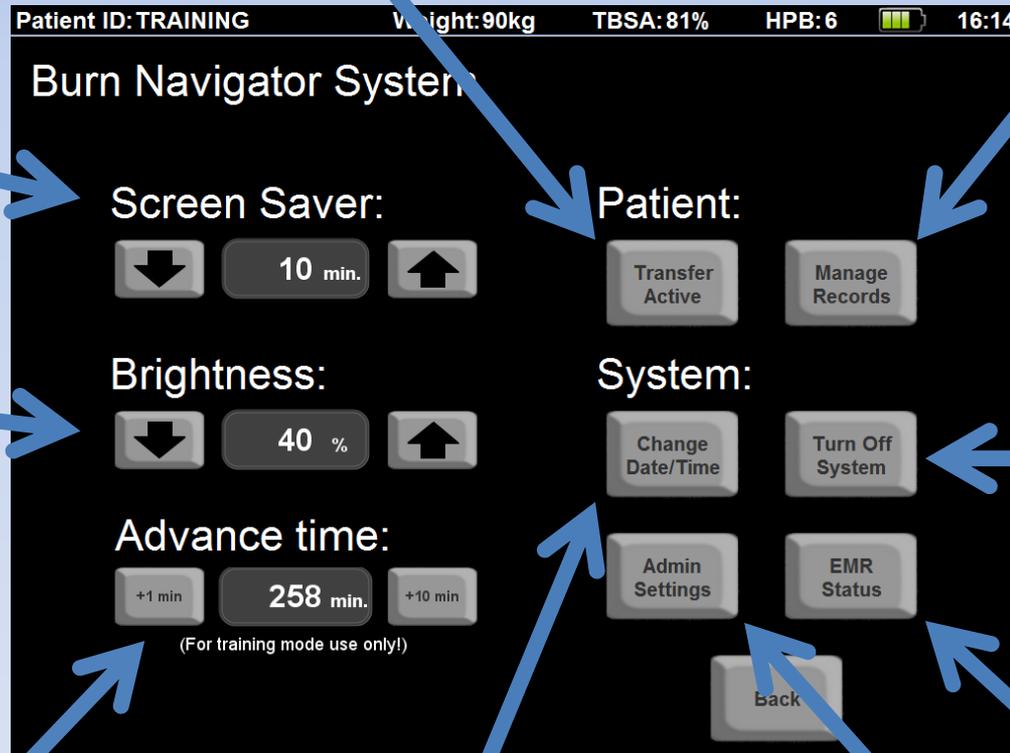
The software won't recommend increasing the IV fluid rate if the 24 hour fluid projection is too high. (The "too high" level is set on the Clinical Admin screen.)

System Functions

Transfer your active patient to a USB data drive (for another Burn Navigator).

Screen saver timer

Screen brightness



Move to USB or delete inactive patient files.

Properly turn off the device.

Note: Turning off the system during training mode will reset the clock.

Advance Time: For training mode only, this feature lets you add minutes to get to the next fluid update quickly.

Change the time-zone, date, or time.

Security, Clinical & EMR settings

Shows EMR status and any error messages

Maintenance

- Clean the device after each patient!
 - Use a disinfectant wipe, per your hospital's policy, to clean the screen and whole device.
- Keep batteries fully charged when not in use.
- Quarterly, delete patient files
- **Change System Time for Daylight Savings!**
(2x each year)

Burn Navigator® Data Tool

- The Data Tool is a separate program that converts encrypted patient files into PDF and Excel CSV files.
- See the Data Tool's instructions for use (IFU-1130) for a step-by-step walkthrough.

Early O.R.

What happens when the patient goes to the O.R. during resuscitation (“early” O.R.)?

E.g., patient goes at 1348 and returns at 1748. The patient received 4 units of whole blood, 2 units FFP, 5,000mL of LR, and had a UO of 200mL.

If the physician wants you to continue the Burn Navigator after “early” O.R. excising, you can:

- Do one fluid update at 1748 that covers the entire OR time. Enter all the fluid and UO in that update. The device will average the fluids over those 4 hours and will provide a new recommendation.
- Ask the doctor what rate to use after OR.

“Early” O.R. Example

Patient ID: TRAINING Weight: 80kg TBSA: 70% HPB: 21 17:48

Fluid Update: Urine Data

Urine measurement time:

From: 13:48 To: 17:48 240 mins.

Urine output volume:

200 mL 0.6 mL/kg/hr

Urine output not measured or unknown.

Back Next

Patient ID: TRAINING Weight: 80kg TBSA: 70% HPB: 21 17:50

Fluids Given

From: 13:48 To: 17:48 240 mins.

Primary fluid was:

Lactated Ringer's

Infusion rate: 1,250 mL/hr Infusion volume: 5,000 mL

Back Next

Patient ID: TRAINING Weight: 80kg TBSA: 70% HPB: 21 17:54

Additional Fluids

Fluid Type	Volume	Repeat
<input checked="" type="checkbox"/> Fresh Frozen Plasma	500 mL	<input type="checkbox"/>
<input checked="" type="checkbox"/> Whole Blood	1,000 mL	<input type="checkbox"/>
Select fluid type...		

Total Additional Fluids: 1,500 mL

Back Next

WARNING: Giving fluids in addition to the primary resuscitation fluid may require an adjustment to the fluid infusion rate by the user, different from the rate recommended by Burn Navigator. The attending physician should be contacted to determine if the new recommended infusion rate is appropriate.

Patient ID: TRAINING Weight: 80kg TBSA: 70% HPB: 21 17:52

New Rate

Previous infusion rate: 1,250 mL/hr

Fluid type: Lactated Ringer's

Recommended rate: 1,250 mL/hr 0% New rate: 1,250 mL/hr 0%

Back Enter

Arcos™

Burn Navigator®

Questions?



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