

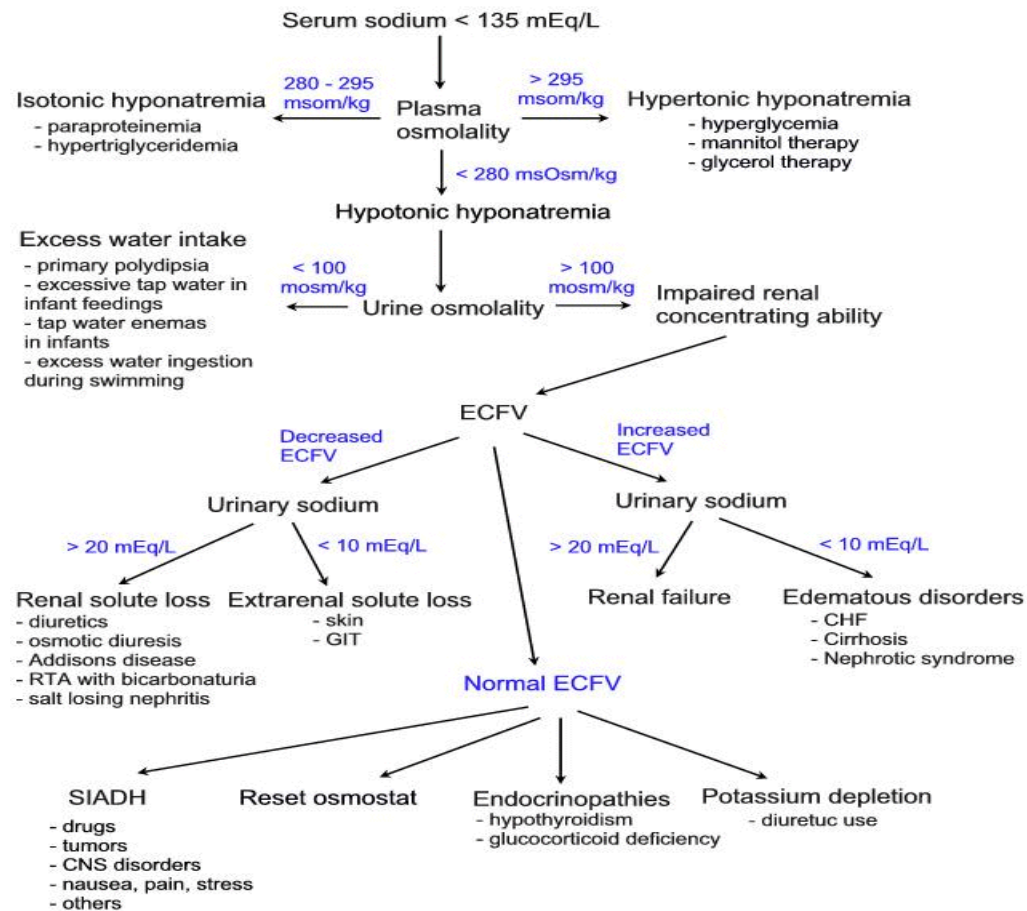
# HYPONATREMIA!!!

SUNIL AGRAWAL, MD

NEPHROLOGY SPECIALISTS OF OKLAHOMA

AGRAWAL@NSOK.ORG

# HYPONATREMIA!!!



PTSD from training!!  
NOW WHAT?????

# HYPONATREMIA!!!



Natural Inclination:  
FLUID RESTRICTION

THIS NOT THE ANSWER MOST OF  
THE TIME!!! (ignores causation)

USUALLY HAVE TO RESITRICT:  
< 800 ml/Day!!!

# HYPONATREMIA!!!

- ▶ What to order:
- ▶ Urine Sodium\*
- ▶ Urine Creatinine
- ▶ Urine Potassium
- ▶ Urine Osmolality
- ▶ Serum Osmolality
- ▶ Serum Uric Acid
- ▶ TSH\*
- ▶ Cortisol\*
- ▶ Frequent Monitoring of Serum Sodium



Famous Renal Attending:  
Dr. Neph Ron

# HYPONATREMIA!!!



Hypertonic Hyponatremia	Isotonic Hyponatremia	Hypotonic Hyponatremia
Serum Osmo: >295 msmo/kg	Serum Osmo: 275-295 msmo/kg	Serum Osmo: <275 msmo/kg
Hyperglycemia Mannitol Glycine	Pseudohyponatremia Paraproteins Hyperlipidemia	Hypervolemia Euvolemia Hypovolemia

# Hyponatremia!!!



Hyponatremia Healing Crystals  
Now Available on Amazon!

## ▶ TREATMENT Considerations:

- ▶ Defining Chronicity
  - ▶ >48 hrs CHRONIC
  - ▶ <48 hrs ACUTE
  - ▶ Note sure → treat as CHRONIC
- ▶ Acknowledge if the hyponatremia is "true."
  - ▶ Serum Osmolality
- ▶ Is the process ADH mediated?
  - ▶ Urine Osmolality
- ▶ Frequent Sodium Monitoring
  - ▶ Avoid more than 6 meq in 24 hours
  - ▶ Maximal change in 24 hours should be < 12 meq
  - ▶ Avoid more than 18-24 meq in 48 hours

# Hyponatremia!!!

	<b>EUVOLEMIC</b>	<b>HYPERVOLEMIC</b>	<b>HYPOVOLEMIC</b>
Minimal Symptoms	Fluid restriction, vaptan or urea	Fluid restriction, vaptan or urea	Saline +/- fludocortisone
Moderate Symptoms	Vaptan or Urea +/- fluid restriction/diuretics	Vaptan or Urea +/- fluid restriction/diuretics	Saline +/- fludocortisone
Severe Symptoms	Hypertonic NaCl	Hypertonic NaCl (Not Ideal)	Hypertonic NaCl

\*\* In the Field: 3% saline 100 ml over 10 min repeat x2

In Hospital: 3% saline 100 ml or 1 ml/kg bolus

Followed by 100 ml/hr or 1-2 ml/kg/hr

\*\*\*only need to raise 4-6 meq to abort symptoms typically



THANKS!

