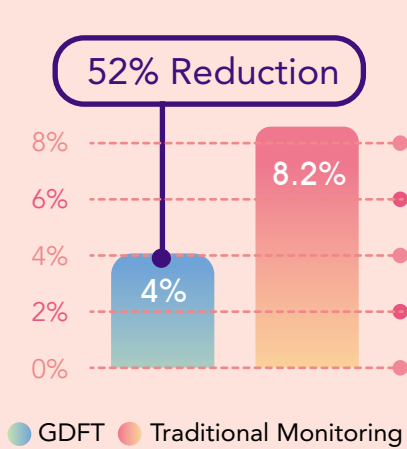


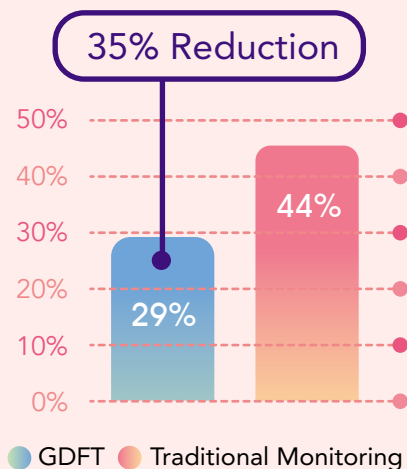
## POSTOPERATIVE MORTALITY



Cecconi et al. Clinical review: Goal-directed therapy - what is the evidence in surgical patients? The effect on different risk groups. Critical Care 2013, 17:209

Clinical differences observed in high risk patients with Goal Directed Fluid Therapy (GDFT)

## POSTOPERATIVE MORBIDITY



## AM I AT HIGH RISK FOR FLUID IMBALANCE ?

### ○ Cardiovascular Dysfunction

- Hypertension: Blood pressure range \_\_\_\_\_ mmHg
- Heart failure / Pacemaker use
- Coronary artery disease
- Arrhythmia

### ○ Respiratory Dysfunction

- Ventilator / Oxygen support
- Pulmonary edema
- Pulmonary fibrosis

### ○ Hepatic Insufficiency

- Cirrhosis
- Hepatic failure
- Ascites / Pitting edema

### ○ Renal Insufficiency

- Hemodialysis
- Peritoneal Dialysis

### ○ Diabetes

Blood glucose range \_\_\_\_\_ mg/dL

Please contact your anesthesia team for further information!

Quality Anesthesia Care

# Goal Directed Fluid Therapy

Perioperative Fluid Balance



台灣麻醉學會

Taiwan Society of Anesthesiologists  
Shared Decision Making Series

Reviewed by Prof. Hung Chih-Jen,  
Prof. Chen Jen-Yin, Prof. Hsieh Yi-Jer.

August, 2018

## Accurate assessment of the body's fluids is essential for quality anesthesia care

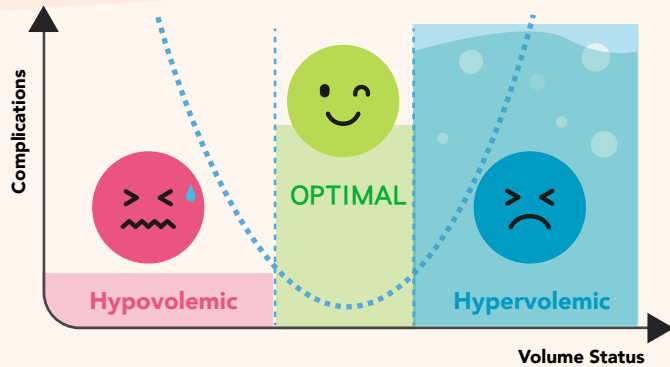
### Hypovolemia (Fluid Insufficiency)

- Ischemic stroke
- Consciousness disturbance
- Oxygen exchange ↓
- Coronary artery disease
- Ischemic heart disease
- Ischemic bowels
- Acute kidney injury
- Poor wound healing
- Physiological stress ↑



### Hypervolemia (Fluid Overload)

- Hemorrhagic stroke
- Consciousness disturbance
- Brain/Lung edema
- Congestive heart failure
- Portal hypertension
- Bowel obstruction
- Ascites/Pitting edema
- Poor wound healing
- Physiological stress ↑

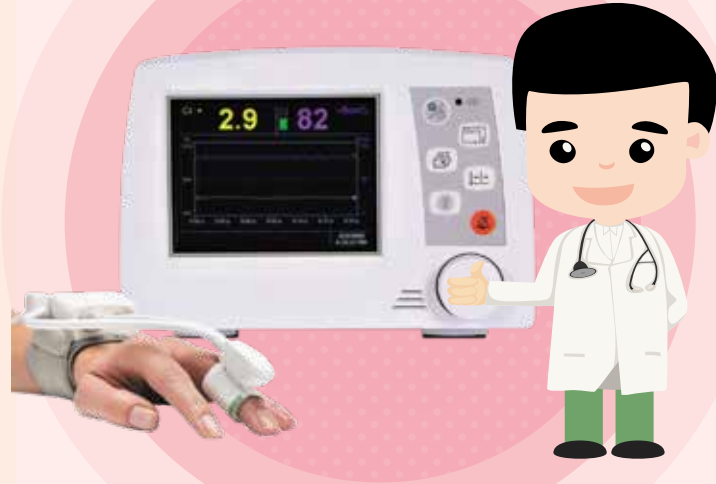


These problems are preventable!

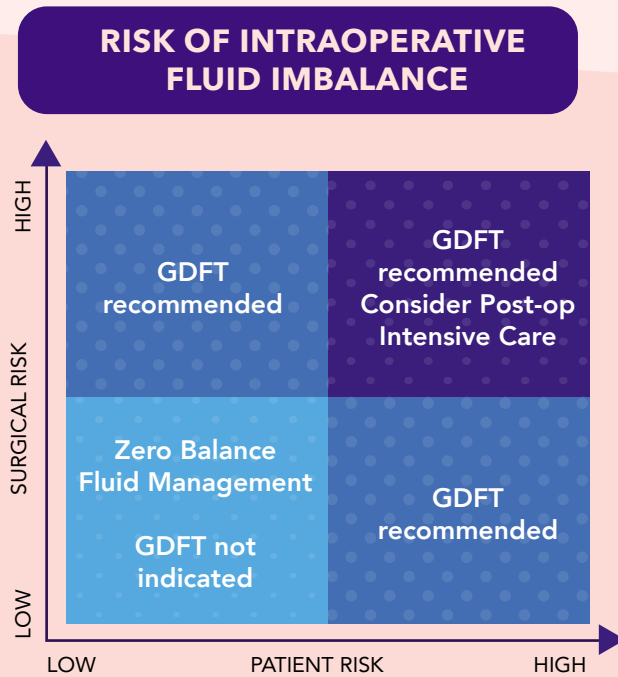


Taiwan Society of Anesthesiologists



## Incorporating real-time hemodynamic monitors to facilitate Goal Directed Fluid Therapy (GDFT)



Analyzing cardiovascular fluctuations to guide intra-operative fluid management



## Comparing GDFT with traditional monitoring

	Goal Directed Fluid Therapy (GDFT)	Traditional Monitoring
Monitoring tools	Heart rate, Blood Pressure, Hemodynamic monitor 	Heart rate, Blood Pressure 
Fluid Management	<b>WIN</b> Objective parameter guided	Subjective experience based
Information accuracy	<b>WIN</b> More accurate	Less accurate
Real-time	<b>WIN</b> Yes	No, Delayed by minutes
Fluid status	<b>WIN</b> Relatively balanced	Often too little or too much
Cardiovascular changes	<b>WIN</b> Relatively stable	Relatively unstable
Postoperative morbidity	<b>WIN</b> Lower	Higher
Postoperative mortality	<b>WIN</b> Lower	Higher

### Specialist's Recommendations

American Society of Anesthesiologists®

American society of anesthesiologist agrees that perioperative assessment of patients' hydration status and fluid management reduces adverse outcomes and improves patient comfort and satisfaction.

ASGBI Association of Surgeons of Great Britain and Ireland

British consensus guidelines on intravenous fluid therapy for adult surgical patients states preoperative 'goal directed hemodynamic therapy' in very high-risk surgical patients has been shown to improve outcome.