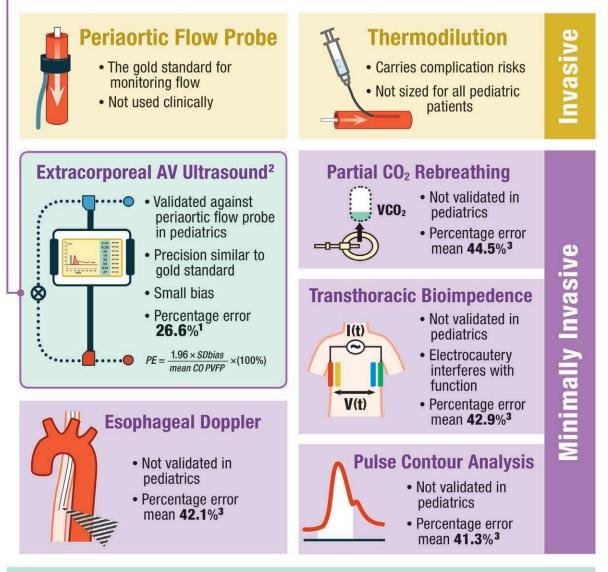
INFOGRAPHICS IN ANESTHESIOLOGY

Complex Information for Anesthesiologists Presented Quickly and Clearly

Monitoring A Big Problem for Little Patients Cardiac Output:

In pediatric surgery, cardiac output falls before MAP declines and is not frequently monitored.¹ —• Sigurdsson *et al.*² have validated a minimally invasive method of monitoring cardiac output.



The extracorporeal AV ultrasound approach offers a simple and reliable method of monitoring cardiac output using existing central and arterial lines.

AV, arteriovenous; CO₂, carbon dioxide; CO PVFP, cardiac output from perivascular flow probe; MAP, mean arterial pressure; PE, percentage error; SDbias, standard deviation of the bias; VCO₂, volume of carbon dioxide.

Infographic created by Jonathan P. Wanderer, Vanderbilt University Medical Center, and James P. Rathmell, Brigham and Women's Health Care/Harvard Medical School. Illustration by Annemarie Johnson, Vivo Visuals. Address correspondence to Dr. Wanderer: jonathan.p.wanderer@vanderbilt.edu. This Infographic has a related article on p. 712 and a related editorial on p. 671.

- 1. Trieu CT, Williams TM, Cannesson M, Marijic J: Babies and children at last: Pediatric cardiac output monitoring in the twenty-first century. Anesthesiology 2019; 130:671–3
- 2. Sigurdsson TS, Aronsson A, Lindberg L: Extracorporeal arteriovenous ultrasound measurement of cardiac output in small children. Anesthesiology 2019; 130:712–8
- Peyton PJ, Chong SW: Minimally invasive measurement of cardiac output during surgery and critical care: A meta-analysis of accuracy and precision. Anesthesiology 2010; 113:1220–35