

Maneesh Batra, MD, MPH
Associate Director, Pediatric Residency Program, Seattle Children’s Hospital/University of Washington School of Medicine

Susan Marshall, MD
Director of Medical Education, Seattle Children’s Hospital/University of Washington School of Medicine

F. Bruder Stapleton, MD
Associate Dean and Ford/Morgan Endowed Chair of Pediatrics, University of Washington

Senior Vice President, Seattle Children’s Hospital

Richard Shugerman, MD
Program Director, Pediatric Residency Program, Seattle Children’s Hospital/University of Washington School of Medicine

Corresponding author: Christine Tan, MD, Seattle Children’s Hospital/University of Washington, 1201 East 36th Avenue, Anchorage, AK 99508, Christine.TanCadogan@providence.org

New Ideas

PREDICT: Instituting an Educational Time Out in the Operating Room

RACHEL L. YANG, MD
MICAELA ESQUIVEL, MD
JENNIFER ERDRICH, MD, MPH
JAMES LAU, MD, FACS
MARC L. MELCHER, MD, PhD
IRENE L. WAPNIR, MD

Setting and Problem

Systematic time outs have been widely adopted in and outside the operating room (OR) to verify team preparedness, and review the details of planned procedures. These have been geared toward safety, which is paramount in every clinical encounter. In academic settings there is an added critical focus on education. As duty hour limits have reduced the time spent in the OR, and the complexity of surgical care has increased, maximizing the educational opportunities presented is imperative. A time out is an efficient platform for testing residents’ knowledge and facilitating faculty teaching. We developed the “Educational Time Out” (ETO), modeled after the World Health Organization’s (WHO) “surgical time out,” as a simple intervention before the start of a surgical case to review and assess trainees’ understanding of indications for surgery, the surgical plan, and technical considerations. This framework focuses learners’ attention and promotes the teaching experience at the outset of the case so that each moment forward has a high learning yield.

Intervention

The ETO has been implemented by 2 attending surgeons at our institution, 1 on the breast surgery service and 1 on the minimally invasive surgery service. The senior resident on the case performs the ETO, which is done routinely

after the WHO surgical time out, but before incision. The goal of the ETO is not to repeat any of the points covered by the surgical time out, rather it focuses on preoperative and operative-related teaching points for trainees. Our ETO covers the following: clinical presentation, disease risk factors, physical examination findings, preoperative diagnosis, operative incision and intraoperative course, and treatment (including postoperative orders and long-term therapy). Consequently, the components of the ETO have a simple mnemonic, PREDICT, and can be covered in 30 to 60 seconds (TABLE).

TABLE	COMPONENTS OF THE PREDICT MODEL
	P = Presentation. Presenting complaint leading to the initial surgical evaluation. This may include symptoms, signs, and/or radiographic findings.
	R = Risks. Risk factors for the current disease.
	E = Examination. Physical examination findings at presentation.
	D = Diagnosis. Clinical or pathological diagnosis.
	I = Incision. Trainee states what incision she or he proposes to use.
	C = Concerns. Intraoperative or postoperative concerns and their contingency plans.
	T = Treatment. Current and postoperative treatment plan.

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Outcomes to Date

We are currently collecting feedback from residents and attendings via an anonymous survey. In our preliminary assessment, resident participants reported they have used the PREDICT mnemonic on other services because it helps them organize patient history and procedural steps succinctly. They also indicated that the framework readily consolidates a high volume of information to the most pertinent details, which allows them to communicate the relevant information to their attending surgeons in a concise yet comprehensive way. From the attendings' perspective, PREDICT reveals which residents are prepared and motivated to maximize their operative learning. The ETO also allows the attending surgeon and the resident to engage in an educational dialogue at the start of each case, which in turn fosters a sustained learning environment in the operating room.

Conclusion

We have found that the educational time out and the PREDICT framework provides a simple approach for trainees to structure their preoperative case preparation, allows them to think about each operative case, and enhances their learning from each operative experience. The PREDICT framework also enables the residents to take a leadership role in team communication and to facilitate active engagement in starting and conducting an operation.

Rachel L. Yang, MD

Resident, Department of Surgery, Stanford University School of Medicine

Micaela Esquivel, MD

Resident, Department of Surgery, Stanford University School of Medicine

Jennifer Erdrich, MD, MPH

Resident, Department of Surgery, Stanford University School of Medicine

James Lau, MD, FACS

Clinical Associate Professor, Department of Surgery, Stanford University School of Medicine

Marc L. Melcher, MD, PhD

Assistant Professor, Department of Surgery, Stanford University School of Medicine

Irene L. Wapnir, MD

Professor, Department of Surgery, Stanford University School of Medicine

Corresponding author: Rachel L. Yang, MD, Stanford School of Medicine, Department of Surgery, 300 Pasteur Drive, Palo Alto, CA 94305, 253.797.0159, rachel.yang3@gmail.com