

## **Summary Operative Outcomes**

*Purpose:* Operative outcomes, consisting of quality of operative product and time to completion, were used to assess surgical residents' technical competence.<sup>1</sup>

*Method:* Twenty senior residents were asked to complete six general surgery procedures to the best of their ability. Bench models for the following procedures were set up for each resident:

choledochojunostomy, rectal anastomosis, femoral artery anastomosis, ileostomy, J-tube insertion, and inguinal hernia repair. Residents were given up to 30 minutes to complete each procedure, using the technique and instruments of their choice, and then had to go to the next task. Nurses were available to assist with, but not guide, procedures and to record task completion times.

The products of each procedure were independently assessed by two faculty. The quality of each product was rated using a four-item global rating form that addressed completeness, esthetics, function, and overall quality. Each item was rated on a five-point scale.

The construct validity of operative outcomes was ascertained by comparing the results of fourth- and fifth-year residents. Concurrent validity was examined by comparing results with residents' objective structured assessment of technical skill scores and faculty ratings. Cronbach's alpha and the Pearson correlation were used to determine interstation and interrater reliabilities, respectively.

1. Szalay D, McRae H, Regehr, Reznick R. Using operative outcome to assess technical skill. *Am J Surg* 2000;180:234-7.