

## AB050. P021. The impact of surgical experience and work routine on operative morbidity and mortality in pancreatic surgery

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**Background:** Annual surgeon volume has been inversely related to operative mortality in complex surgery (Birkmeyer *et al.* 2013). The importance of surgical experience and work routine of the operating surgeon, however, is uncertain. We aimed to determine the impact of surgical experience and work routine on operative morbidity and mortality in pancreatic surgery in a high-volume center with a pancreatic surgery training program.

**Methods:** Using information from a single center database, we examined surgical morbidity and mortality of 1,281 patients who underwent pancreatic resections from 1993 to 2013. All cases were stratified according to the surgeon's level of experience, which was defined as the total number of previously performed pancreatic resections (beginner:  $n < 20$ , intermediate:  $n = 21-90$  and expert  $n > 90$ ). Additional stratification was based on the surgeon's work routine in pancreatic surgery (rare: 3 resections  $> 6$  weeks, frequent:

3 resections  $\leq 6$  weeks). Using logistic regression models, we examined the relations between operative outcomes and the surgeon's level of experience as well as his recent work routine in pancreatic surgery.

**Results:** The levels of beginner and expert experience was related to a decreased risk of postoperative pancreatic fistulas (OR, 0.46; 95% CI, 0.26–0.82 and OR, 0.54; 95% CI, 0.36–0.82, respectively) and in-hospital mortality (OR, 0.45; 95% CI, 0.17–1.16 and OR, 0.42; 95% CI, 0.21–0.83) compared to the level of intermediate experience. Independent from the level of experience, a frequent work routine was associated with a significantly lower risk of delayed gastric emptying (OR, 0.56; 95% CI, 0.38–0.83), postpancreatectomy hemorrhage (OR, 0.64; 95% CI, 0.42–0.98) and in-hospital mortality (OR, 0.45; 95% CI, 0.24–0.87).

**Conclusions:** Within a pancreatic surgery training program of a high-volume center, rates of operative morbidity and mortality of inexperienced surgeons supervised by expert surgeons are comparable to those of expert surgeons. However, with increasing experience and subsequent reduction of expert supervision the risk of operative morbidity and mortality increases.

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