

Long learning curve for surgeons operating on esophageal cancer

Esophageal cancer is the eighth most frequently diagnosed cancer worldwide and the sixth most common cause of cancer-related death. The curatively intended treatment usually includes extensive surgery with removal of most of the esophagus (food-pipe) and the upper part of the stomach. The procedure is time-consuming and complex.

It is well known that the survival after this operation is related to the surgeon's experience of the procedure, but it is unclear how many operations are needed for the surgeon to attain the competence needed for achieving optimal results regarding patient survival. Now researchers at Karolinska Institutet in Stockholm, Sweden and at Imperial College London, United Kingdom, have found that a surgeon who operates on esophageal cancer need to perform 60 operations before the lack of experience adversely affects the long-term survival of the patients. The finding, which is published in the *Journal of Clinical Oncology*, can influence clinical practice.

This study is the first to examine the surgeon's "learning curve" in relation to short and long-term mortality rates and shows that a surgeon needs to perform 15 operations to obtain stable results as regards survival during the first 3 months following the operation, and 60 operations before achieving optimal results regarding 5-year survival.

The study examined 1821 patients who underwent surgery for esophageal cancer in Sweden between 1987 and 2010 by 139 different surgeons. Even though the surgeons were experienced with other procedures when starting to perform oesophagectomies, the point of stability regarding their 5-year mortality rate was at 60 operations.

Based on these results the authors of the study believe in two main strategies to avoid unnecessary deaths following surgery for esophageal cancer. Firstly, properly organized training programmes should be introduced for esophageal cancer surgery. With esophageal cancer operations centralized to a limited number of surgeons those who start operating on esophageal cancer should perform many operations together with experienced esophageal cancer surgeons before they begin to operate independently. Secondly, a mentorship and continual technical proficiency scheme to support specialists during the initial phase of independent practice should be put in place.

The research was funded by the Swedish Research Council and the Swedish Cancer Society.

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Publication

[Surgical Proficiency Gain and Survival After Esophagectomy for Cancer.](#)

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J Clin Oncol. 2016 May 1