erative risk factors in many patients. As many patients present themselves with an advanced stage of carcinoma at the time of diagnosis, multimodality regimens mainly induction chemotherapy and/or chemoradiotherapy increasingly become part of the therapeutic strategy. This results in more complex decision making algorithms and more complex surgery with higher surgical risk requiring interdisciplinary team approach on a regular base with an ever more demanding expertise from all involved disciplines.

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Quality of surgery and outcome in gastric cancer surgery

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The main aspects, being responsible for a high *quality* of gastric cancer surgery, are the surgical expertise, a high number of operations and an efficient intensive care medicine. There centers of excellence in gastric cancer surgery demonstrate a low postoperative morbidity with a total complication rate below 20%, a rate of anastomotic insufficiencies of less than 3%, a 30-day mortality below 3% and a 90-day mortality of 25%, which should be the future standard for all centers doing gastric cancer surgery. The postoperative outcome is closely related to the type of reconstruction. With regard to quality of life after total gastrectomy, the best reconstruction type in curatively operative patients is the interposition of a jejunum pouch with preservation of the duodenal passage. These patients demonstrate a better food intake with a larger quantity of meals, a low frequency of reflux esophagitis (1–5%), rare dumping symptoms (<5%) and a significantly higher body weight (8% higher) at 6 months postoperatively in comparison to Rouxen-Y reconstruction.

From the oncological point of view, however, long term *outcome* of gastric cancer surgery is still unsatisfactory. The prognosis is poor in stages III and IV (2-year survival 62% and 8%, respectively; 5-year survival 34% and 6%, respectively). The risk of local recurrency at 5 years postoperatively ranges between 37 and 43% in curatively operated patients. The positive impact of lymphadenectomy on prognosis is generally accepted. Future studies have to find out whether multimodal therapy approaches using neoadjuvant chemotherapy are able to improve prognosis decisively in advanced stages of gastric cancer.

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Liver tumor surgery: Quality of surgery and outcome on the basis of a large interdisciplinary treatment unit

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Liver tumour surgery is the distillation of several types of expertise: high technology surgery, close familiarity with the complexity of liver disease, modern techniques of functional investigation, advanced oncologic practice.

The Centre Hépatobiliaire was established on this multidisciplinary concept in 1993, with all of the specialised medical and support staff needed for acute and elective surgical and non-surgical management of liver disease. Caseload, notably for liver tumour surgery and associated chemotherapy, is increasing by >10% per year. For hepatocellular carcinoma (HCC – 778 new cases since 1993) our multimodal approach involves combinations of resection, liver transplantation, transarterial chemoembolization (TACE), chemotherapy, and percutaneous in-situ tumour destruction by cryosurgery, thermal coagulation, or ethanol injection. Operative mortalities for HCC are 1% without cirrhosis, 7% if Child A/B, and <4% for transplantation. For hepatic colorectal metastases (574 new cases since 1993), resection can be curative, and we use techniques to increase the proportion of resectable patients. Tumour size is reduced with neoadjuvant chemo-therapy or percutaneous destruction. Remnant liver volume is increased by preoperative portal vein embolization. Two-stage hepatectomies may be performed. Early repeat resection has outcomes similar to primary resection. Operative mortality for all hepatectomies is 1%.

Chronomodulation has allowed higher chemotherapy dose intensity without added side-effects. For each surgical procedure, reference scales for quality – mortality, morbidity, and survivals – are determined by comparison with our historical performance data and with the literature. The multidisciplinary structure and multimodal approaches in the CHB seem to achieve the two objectives of liver tumour surgery: to increase the quality of the surgical outcome, and to increase the number of operable patients.

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Abstract not received.

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Surgical Oncology – The volume-outcome impact. Breast cancer

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The relationship between caseload (volume) and outcome remains controversial. Complication rates and 30 day mortality are less for surgeons specialising in oesophageal and pancreatic cancer resections but the situation in colorectal cancer is less clear.

For patients with breast cancer there are now a number of studies showing that specialisation, however measured, improves survival. Gillies (1) showed that patients looked after by a surgeon with an interest in the disease had a lower relative risk (0.63) of death at 5 years. We have shown widespread differences in the utilisation of adjunctive therapies across Yorkshire (2) and that these translate into survival differences (3). Significant factors for delivery of improved breast cancer survival included use of chemotherapy and workload. Had appropriate levels of chemotherapy been used then the 5 year survival rates would have approached those seen elsewhere in Europe at that time.

An additional Scottish study has shown that area of residence and workload were significant factors for both survival and local recurrence.

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Eps8 and E3b1 mediate transduction of signals from Ras to Rac

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The small guanine nucleotide-binding protein, Rac, regulates mitogen-reduced cytoskeletal changes, c-jun aminoterminal kinase and its activity is required for Ras-mediated cell transformation. Epistatic analysis, using actin reorganization as a readout, placed Rac as the key downstream target in Ras signaling, however the biochemical mechanism regulating the crosstalk among these small GTP-binding proteins is not completely understood. In this study we report the positioning of Eps8 in the mitogenic network. Our results indicate that Eps8 is indispensable for the transfer of signals between Ras and Rac, by regulating the action of Rac-specific GEFs. By combining genetic and biochemical approaches we showed that: i) overexpression of Eps8 led to the potentiation of Ras-dependent signaling, in particular affecting the branch of the Ras pathway leading to JNK activation; ii) genetically-engineered removal of *eps*8 from cells resulted in the impairment of signal transduction from Ras to Rac; iii) Eps8 is in a genetic epistatic relationships with Ras/phosphatidylinositol 3-phosphate Kinase, upstream, and Rac, downstream; iv) Eps8 seems to be exclusively involved in the Ras-dependent activation of Rac, since stimuli able to bypass Ras and to converge on the pathway downstream (such as TPA-induced activation of Rac or UV light-induced activation of JNK) are unaffected; v) Eps8 dependent regulation of a Rac-GEF, likely by regulating the activity of Sos-1 via E3b1, an Eps8-associated protein Based on these results, we would like to propose a model in which Eps8 is a functional activator of a Rac-specific GEF and is regulated by the activity of PI3K. Ras downstream regulatory molecules, like Eps8, are likely necessary to elicit full transforming and oncogenic responses. However they appear to be dispensable for a variety of other Ras-dependent functions. This property could make them ideal target for therapeutic strategy aimed at specifically blocking the oncogenic potential of Ras proteins.