

OEO2 trial

Reference: Medical Research Council Oesophageal Cancer Working Group. Surgical resection with or without preoperative chemotherapy in oesophageal cancer: a randomised controlled trial. *Lancet* 2002;359(9319):1727-33.

[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(02\)08651-8/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(02)08651-8/fulltext)

OEO2 involved 802 patients from 42 European centres.

P: Patients with all histological types of 'resectable' oesophageal cancer (and cardia cancer)

I: Neoadjuvant chemotherapy (cisplatin and 5FU) for 2 cycles followed by surgery

C: Straight to surgery

O: Overall and disease free survival, dysphagia and performance status

Results: Median survival was 16.8 months (chemo group) vs 13.3 months (surgery group). 5-year survival was 23% (chemotherapy) compared with 17.1% (surgery). Disease free survival was also better in the chemotherapy group. There were no differences in dysphagia scores or performance status between the groups. Surgical resection was more complete and tumours were smaller with less extension into surrounding tissue and less nodal involvement. In this patient group, surgery alone confers unacceptably high R1 rates and compromises long term survival.

Critical appraisal:

Internal validity	Selection bias	Low: telephone randomisation service
	Detection bias	Unclear: no info about whether outcome assessors were blinded (primary outcome is objective but secondary outcomes e.g. dysphagia, performance status are not)
	Performance bias	Unclear: no info about whether surgeons were blinded
	Attrition bias	Low: very few dropouts
	Selective outcome reporting	Low
External validity	P	Relatively broad: all histological types of 'resectable' oesophageal cancer
	I	Intervention (chemotherapy) relatively tightly standardised.
	C	Pre-operative radiotherapy was allowed in both groups at clinicians' discretion. Type of surgery at surgeons' discretion.
	O	Relatively patient-centred (survival, dysphagia)
	O	42 centres across Europe

How has this influenced practice? NICE guidelines now recommend that all patients with locally advanced cancer are offered neoadjuvant chemo(radio)therapy.

Other criticisms: OEO2 showed contrasting results to a US trial (North American Intergroup) which found no difference between treatment groups in overall or disease free survival. Results of surgery alone were similar in the two trials whereas overall survival was longer in OEO2. Main differences between the two trials were the overall dosage of chemotherapy (higher in the Intergroup trial) and adherence was much higher in OEO2.

Pre-operative staging requirements are now out of date by today's standards.