

# Does the Timing of Oesophagectomy after Neoadjuvant Chemoradiotherapy Affect Pathologic Complete Response and Perioperative Outcomes?

A retrospective cohort study of three surgical intervals (<8, 8–12 and 12–16 weeks)

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## BACKGROUND

- NaCRT then oesophagectomy is standard for locally advanced oesophageal cancer; pathologic complete response (pCR) is a key prognostic marker.
- Surgery within 8 weeks is advised largely on expert opinion; many of our patients are operated on later.

**Objective:** to assess whether the NaCRT-to-surgery interval affects pCR and early outcomes, and whether pCR affects survival.

## METHODS

- **Design:** retrospective cohort, prospectively maintained database (IRB exemption 03-06-2026-02).
- **Inclusion:** platinum-based CRT then curative oesophagectomy; **excluded** if no surgery, missing interval or >16 weeks.
- **Exposure:** end of radiotherapy to surgery: <8, 8–12 or 12–16 weeks.
- **Outcomes:** pCR, complications, length of stay, 30-day mortality, overall survival.
- **Analysis:**  $\chi^2$ /Fisher, Kruskal–Wallis, Kaplan–Meier with log-rank.

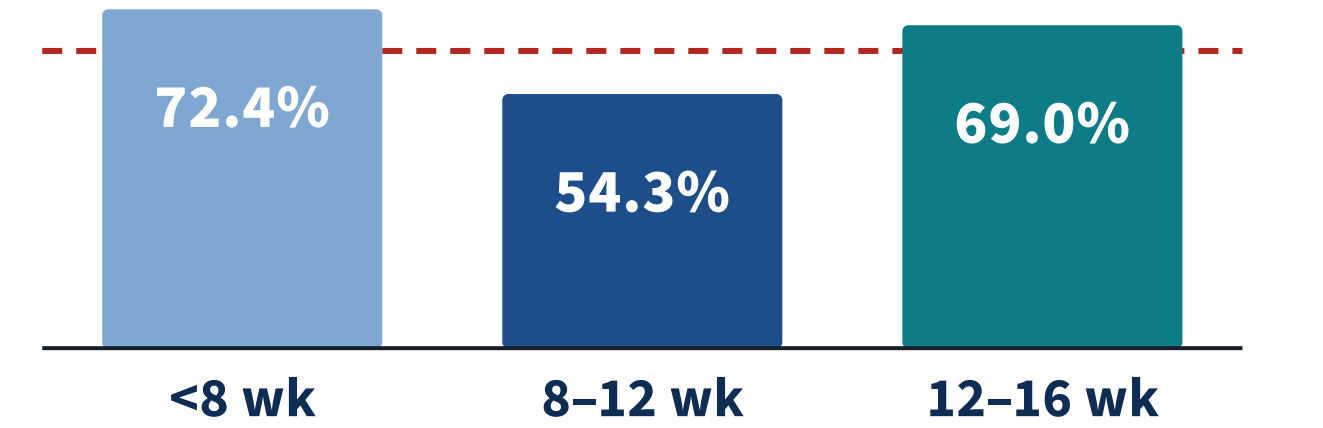
## COHORT (N = 199)

|                     |                       |                        |
|---------------------|-----------------------|------------------------|
| 29                  | 83                    | 87                     |
| <8 weeks<br>(14.6%) | 8–12 weeks<br>(41.7%) | 12–16 weeks<br>(43.7%) |

Mean age 48.0 y; 53.3% male; SCC 89.9%; cT3/T4 96.5%. Groups comparable except age (higher at 12–16 wk, P = .016).

## RESULTS

pCR by interval (overall 63.5%, P = .051)



Dashed line: overall pCR. <12 vs 12–16 wk: 59.1% vs 69.0%, P = .151.

### Perioperative outcomes

| Outcome          | <8 wk              | 8–12  | 12–16 | P    |
|------------------|--------------------|-------|-------|------|
| Any complication | 10.3%              | 18.1% | 25.3% | .184 |
| Anastomotic leak | 3.4%               | 2.4%  | 2.3%  | .940 |
| Pulmonary        | 3.4%               | 9.6%  | 6.9%  | .529 |
| Chyle leak       | 0%                 | 0%    | 3.4%  | .141 |
| 30-day mortality | 0%                 | 1.5%  | 0%    | .495 |
| Median LOS, d    | 8                  | 8     | 9     | .018 |
| Overall survival | log-rank (n = 197) |       |       | .477 |

### pCR and survival

|                                         |                                         |
|-----------------------------------------|-----------------------------------------|
| Not reached<br>median OS, pCR (n = 125) | 92.7 mo<br>median OS, residual (n = 72) |
|-----------------------------------------|-----------------------------------------|

Log-rank P = .013; early complications similar (18.4% vs 23.0%, P = .552).

**Limitations:** 55.3% lost to follow-up, so survival analyses are exploratory; small <8-week group; single-centre retrospective design.

**CONCLUSION** Delaying oesophagectomy up to 16 weeks after NaCRT did not significantly change pathologic complete response, perioperative morbidity or survival; the only difference was a one-day longer hospital stay. pCR was associated with better overall survival. When delay is clinically needed, surgery beyond 8 weeks was not associated with worse cancer outcomes.