

# Enhanced recovery after oesophagectomy: the benefit of having a discharge target

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The target discharge date after oesophagectomy at OUH is Day 8

However, recovery is often fraught, with around half of patients developing complications

Therefore the value of having this early enhanced recovery (ERAS) target could be challenged

## Aims

Here we reviewed our experience with this target, with the following aims:

- (i) What proportion met the target?
- (ii) What are the medical and non-medical reasons for extended admission?
- (iii) Are outcomes improving?

## Methods

This retrospective analysis of a high-quality, prospectively maintained databank included all patients since the current ERAS pathway was introduced 2015.

ECCG definitions were used for complications

Outcomes were reported over time and trends examined with  $\chi^2$  test. Binary logistic regression models with bootstrapping were fitted to examine predictors of discharge delay. SPSS v26 and Prism 7 were used.

## Results

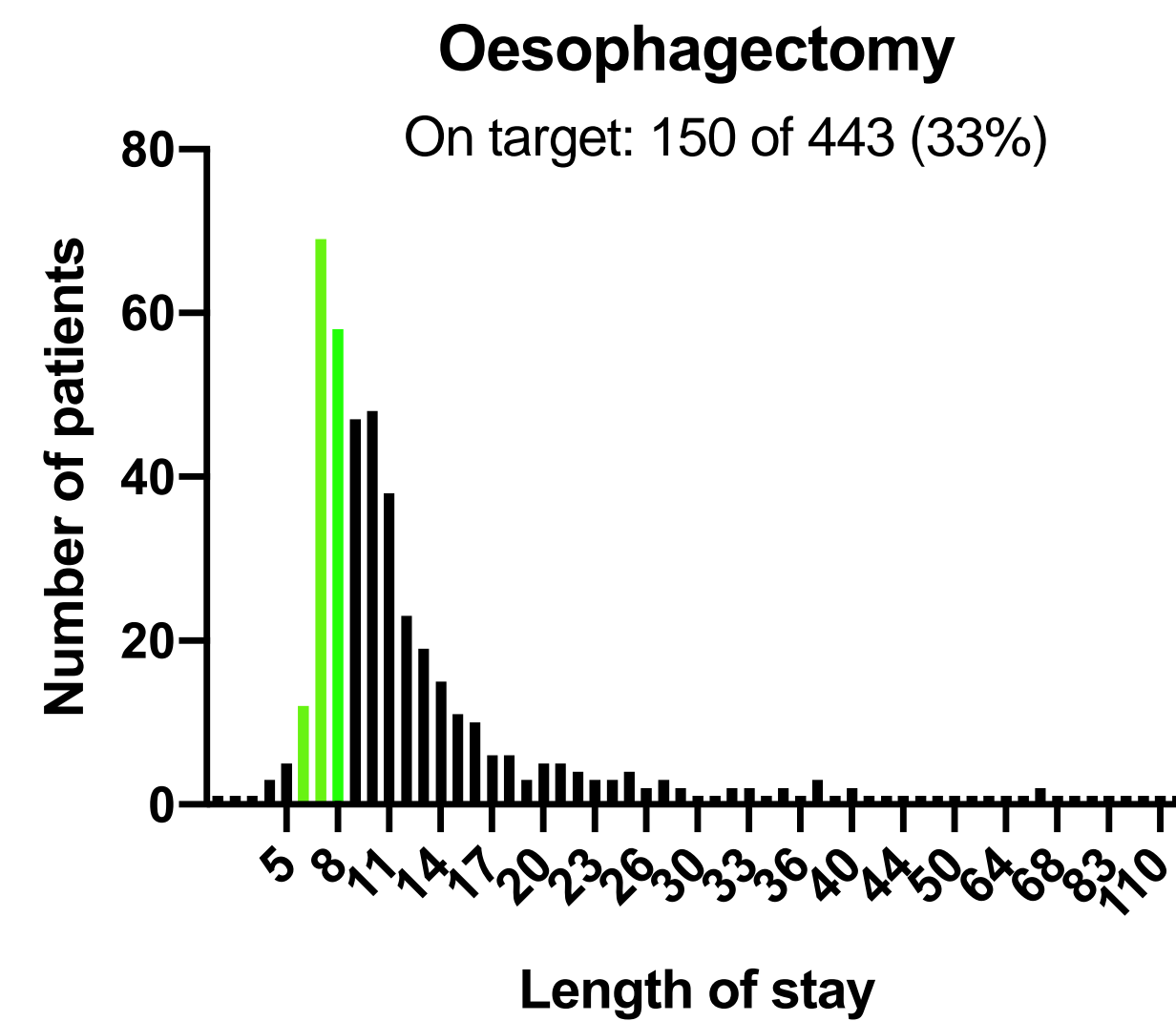


Figure 1: The analysis included 443 patients treated on the 8 day ERAS pathway. Only 33% met the D8 target, although 66% were discharged by D10, and 80% by D14.

	n (%)	median extra days
<b>Total</b>	443	
<b>Met target</b>	150 (33%)	
<b>Missed target</b>	293 (66%)	4
<i>with complication</i>	226 (51%)	6
e.g. pneumonia	134 (30%)	6
e.g. anastomotic leak	16 (3.6%)	54
e.g. conduit necrosis	5 (1%)	57
<i>without complication</i>	67 (15%)	
e.g. not medically ready	37 (8%)	4
e.g. feeding tube training	10 (2%)	2
e.g. low mood	6 (1.3%)	4
e.g. transport	6 (1.3%)	2

Table 1: The majority of delayed discharges were due to complications, although a significant proportion were non-medical and potentially could be avoided

Admission length by year

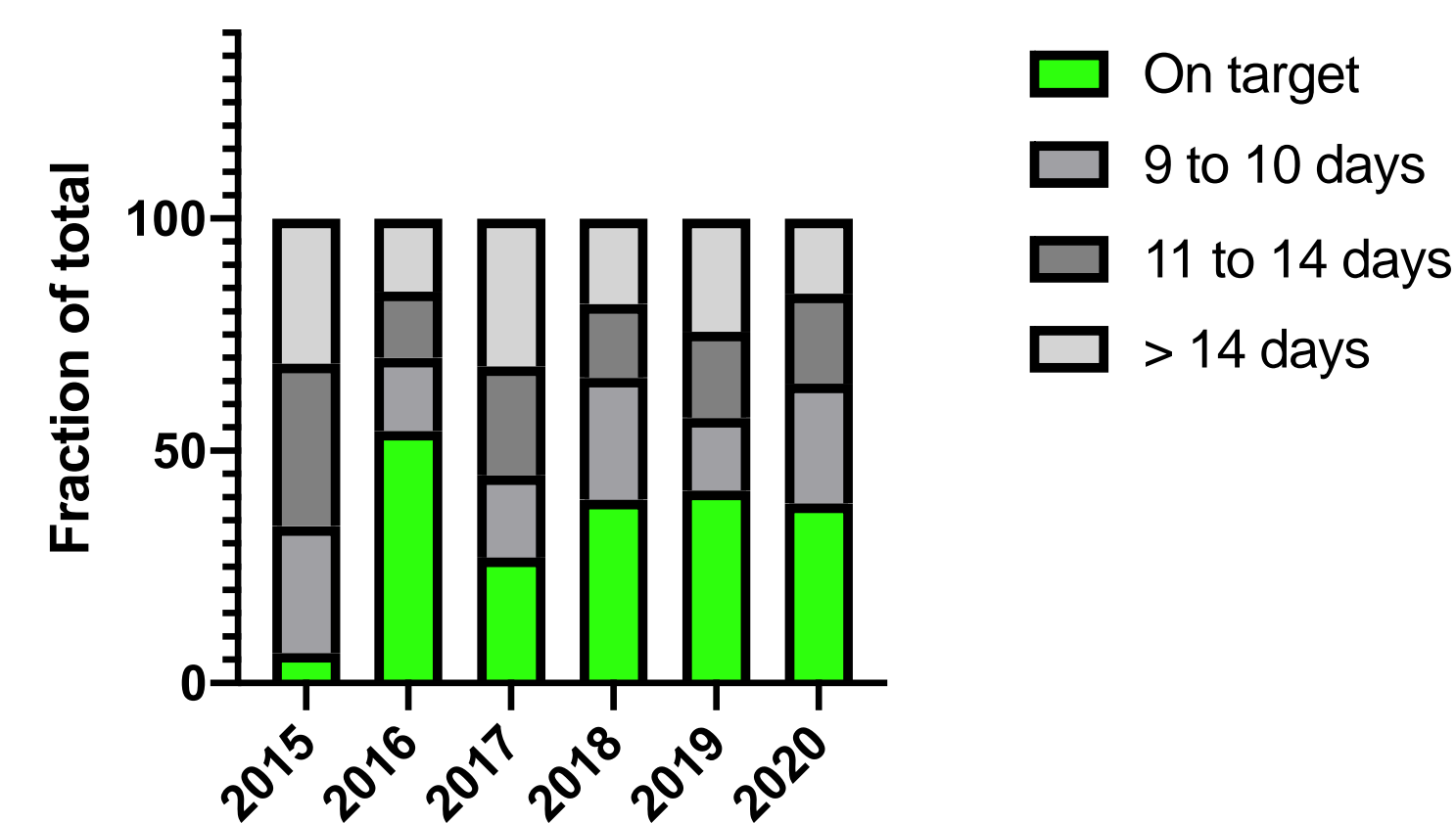


Figure 2: Patients treated since 2018 were significantly more likely meet their discharge date (OR 1.28, P = 0.041) compared to 2015-2017. R0 rate, lymph node yield and thirty-day mortality was not different (30d mortality 0.9% vs 1.8%, P = 0.067, data not shown).

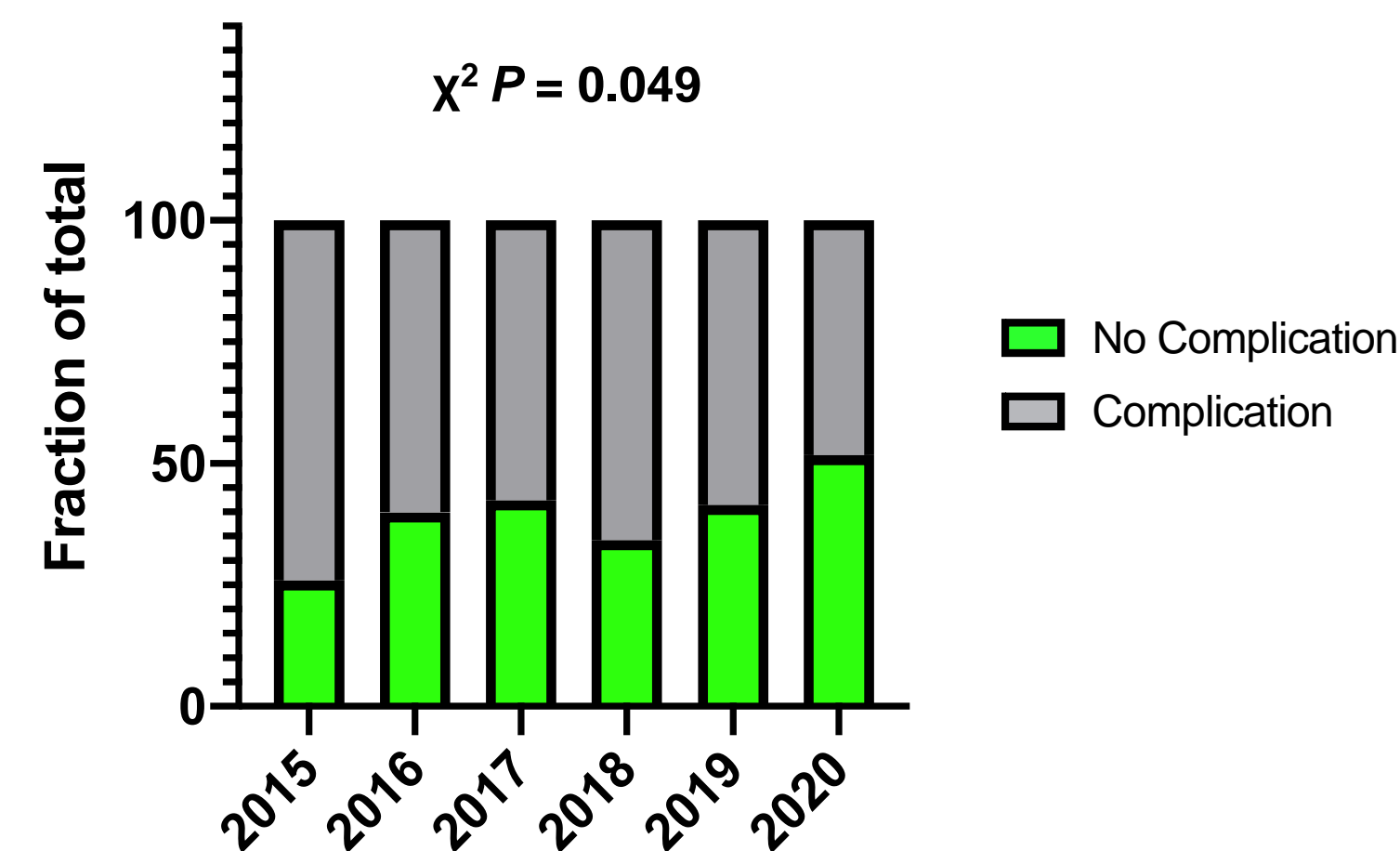


Figure 3: The proportion of patients with no complications after surgery is steadily increasing over time, from 26% in 2015 to 51% in 2020

## Summary

The D8 target was met in only 33% of patients in this large ERAS series

Female sex, squamous carcinoma histology, and low socio-economic status predicted delayed discharge (as well as having a complication)

Non-medical reasons for delayed discharge include jejunostomy training, transport, and mood issues

Nonetheless, the D8 target is increasingly being met and complications are falling, with equivalent surgical quality

This suggests it is good to have an early target, even if it often missed.

	Exp(B)	95% C.I.	P
Age (<65 years)	0.80	0.74 - 1.04	0.41
<b>Female</b>	<b>2.46</b>	<b>1.27 - 4.81</b>	<b>0.008</b>
Charlson	0.88	0.74 - 1.04	0.141
<b>Squamous</b>	<b>2.47</b>	<b>1.05 - 5.78</b>	<b>0.037</b>
<b>IMD tertile</b>	<b>1.34</b>	<b>1.06 - 1.70</b>	<b>0.016</b>
<b>Complication</b>	<b>4.16</b>	<b>2.67 - 6.47</b>	<b>&lt;0.001</b>

Table 2: Independent predictors of delayed discharge included female sex, squamous histology and low socio-economic status (IMD tertile), in addition to complications.