

# Impact of Change in Policy on Intention to Treat and Day Case Rates for Laparoscopic Cholecystectomy

Dr Adam Mounce and Dr Doddamanegowda Chethan  
 Department of Anaesthetics, Prince Charles Hospital, Merthyr Tydfil  
 Corresponding Author: agmounce@doctors.org.uk

## Introduction

Despite several advantages to day surgery, our organisation experienced a number of barriers to improve day case rates for Laparoscopic Cholecystectomy (LC) prior to pandemic. These barriers ranged from clinicians' preference for in-patient surgery to poor organisational processes to clearly facilitate day surgery for all suitable patients. A new Health Board wide Standard Operating Procedure (SOP) was implemented in March 2023 mirroring the 2019 British Association of Day Surgery (BADs) guidelines for day surgery and supported by National Day Surgery Delivery Pack 2020 to improve day case rates (1, 2).



### Aim:

We sought to assess the impact of the new SOP on intention to treat and day case rates achieved for LC our hospital.

## Method

We used the theatre software (TOMS) to identify all planned LC between 2018/2019 (pre-SOP data) and 2023/2024 (post-SOP data). Cross referencing with Welsh Patient Administration System (WPAS) database where intention to treat at booking is captured for each planned LC, the trend in intention to treat was compared to pre-SOP data. The date of admission and discharge following LC is also recorded on WPAS and this data was gathered to analyse the length of stay following a LC.

## Results

### Changes in Intention to Treat as a Day Case

In 2018/2019 a total of 277 patients were booked for LC and in 2023/2024 a total of 289 patients were booked for LC. In 2018/2019, 136 (49.1%) of these cases were booked with the intention to treat as a day case. Following the introduction of the new SOP in 2023/2024 this number increased to 232 (80.3%) (Fig.1).

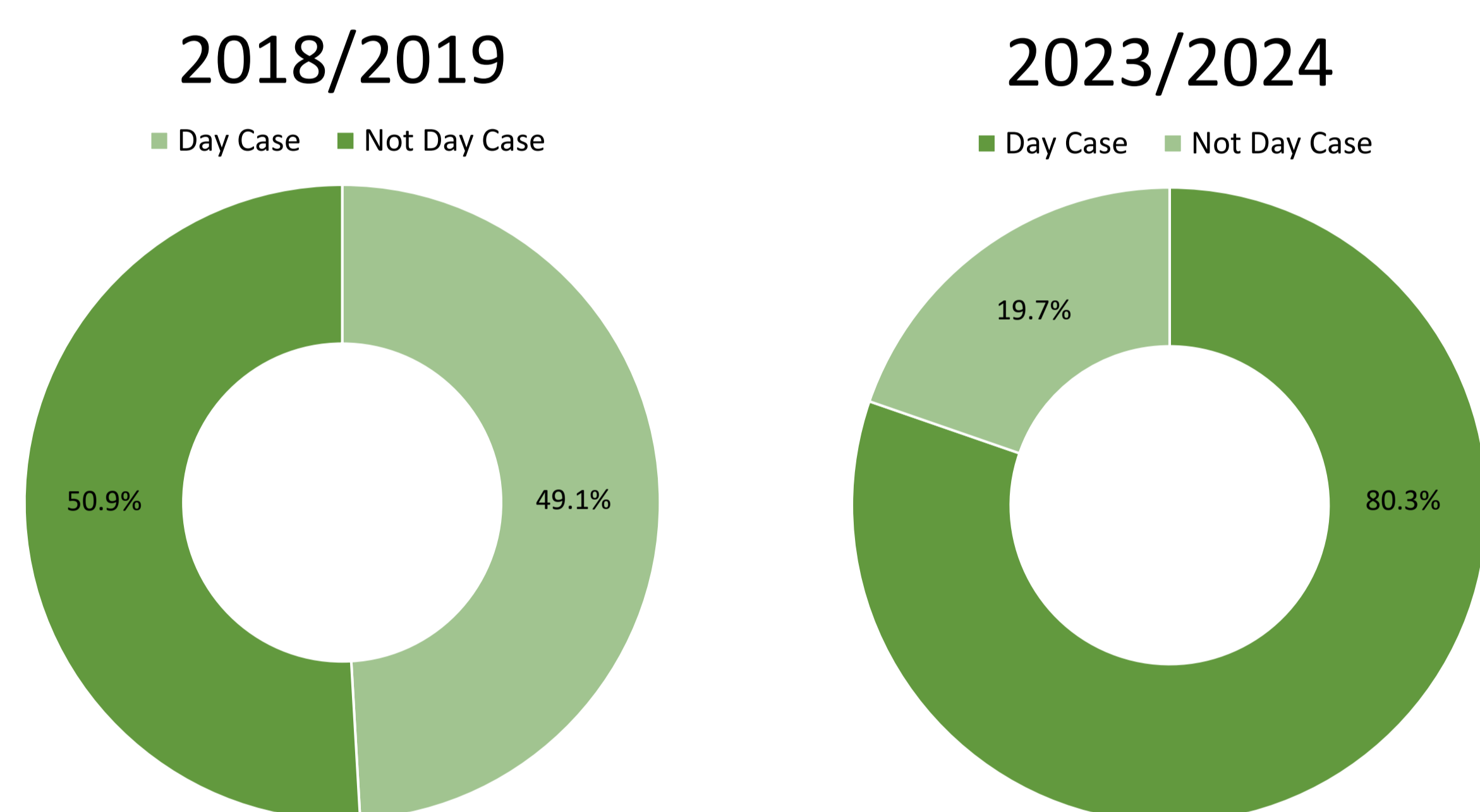


Figure 1: Changes in intention to treat as a day case between 2018/2019 compared to 2023/2024 expressed as percentages.

### Changes in Length of Stay for Intention to Treat as a Day Case

For those cases with the intention to treat as a day case (136 cases in 2018/2019 and 232 cases in 2023/2024), there was an increase in the number of these cases successfully being treated as a day case and were discharged the same day following the introduction of the new SOP (Fig.2).

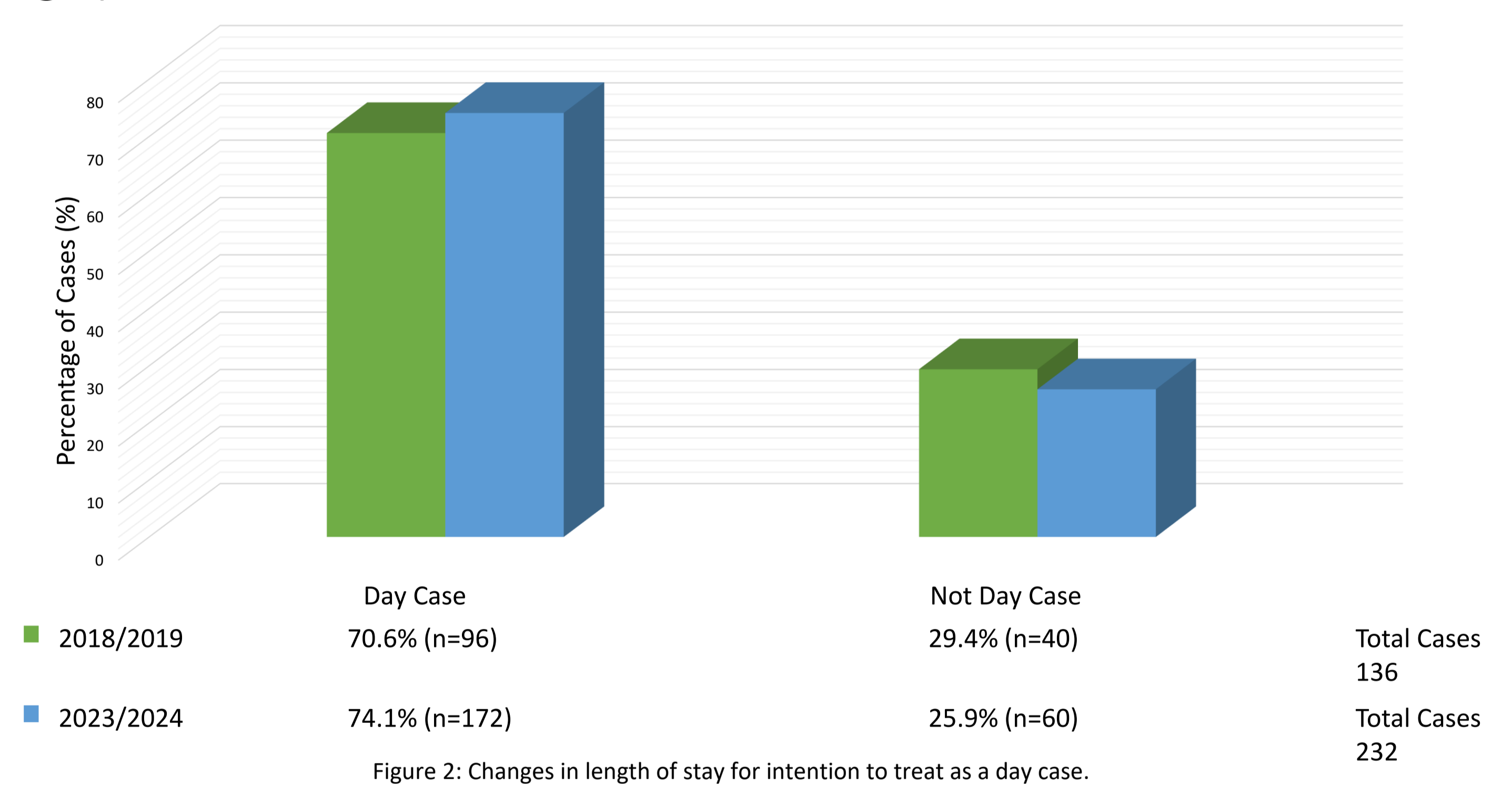


Figure 2: Changes in length of stay for intention to treat as a day case.

### Changes in Length of Stay for Intention to Treat as an In-Patient

For those cases with the intention to treat as an in-patient, i.e. LC booked by the surgeon for the patient to be admitted for at least one night post operatively, there was an increase in these cases being facilitated as a day case (Fig.3).

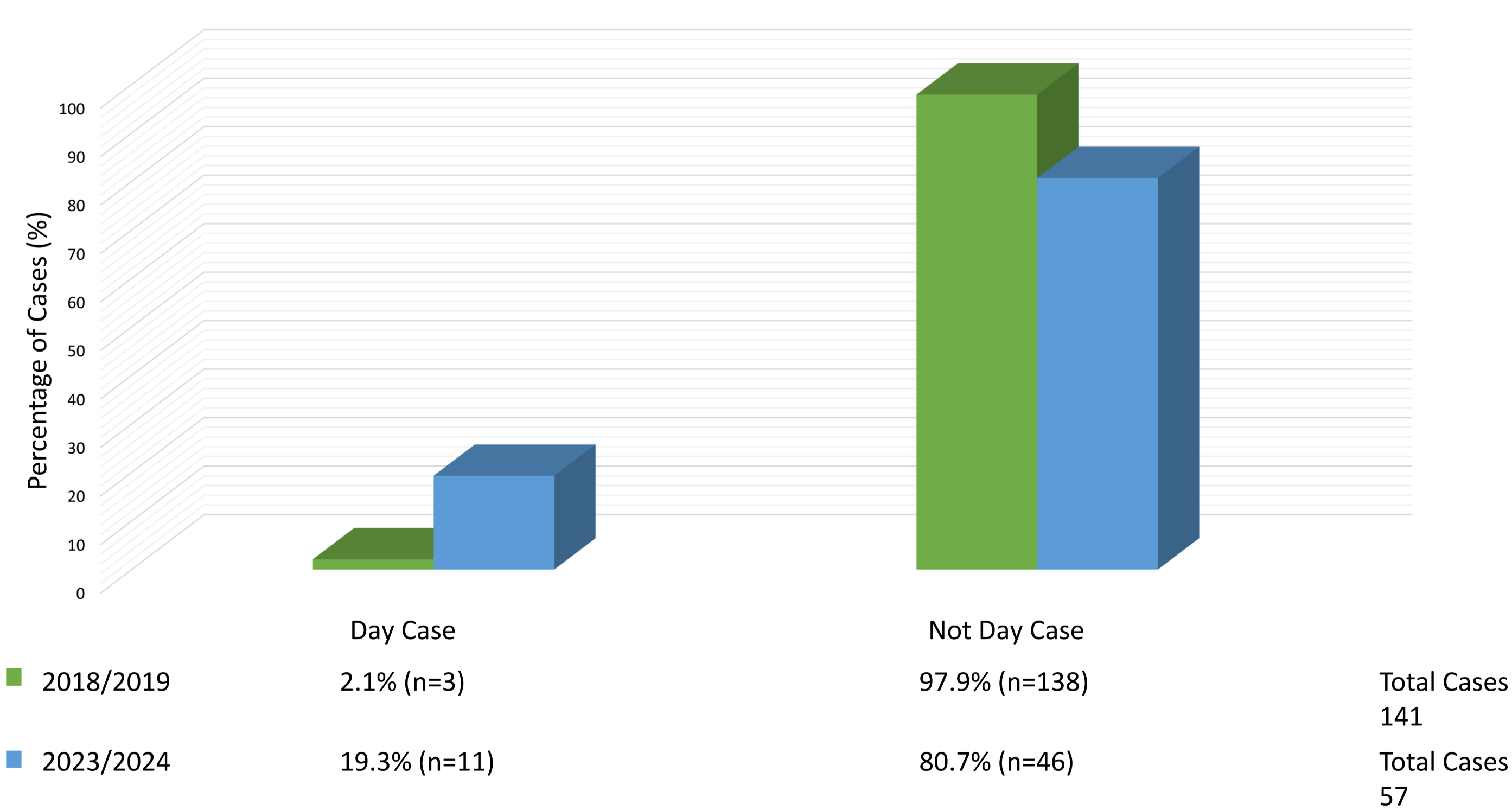


Figure 3: Changes in length of stay for intention to treat as an in-patient.

### Changes in Length of Stay for Different ASA Grades

Regardless of the intention to treat as a day case or an in-patient, for ASA grades 1-3, there was an increase in the number of cases being treated as a day case and being discharged the same day as surgery (Fig.4).

ASA Grade	2018/2019		2023/2024	
	Day Cases	Not Day Cases	Day Cases	Not Day Cases
I	31	21	36	4
II	60	108	122	51
III	6	47	25	50
IV	0	2	0	1
<b>Total</b>	275 (2 cases excluded as erroneously entered as ASA VII into database)		289	

Figure 4: Changes in length of stay for different ASA grades before and after new SOP.

## Discussion and Conclusion

The BADs guidelines recommend that all LC be booked with intention to treat as a day case. This SOP has facilitated the increase in the intention to treat as day case from 49.1% in 2018/2019 to 80.3% in 2023/2024. Despite this increase in intention to treat as day case and therefore more cases booked as day case, the day case rates remain high for LC indicating a positive impact on waiting list. Even for those cases with the intention to treat as an in-patient, there has been an increased in the number of patients being discharged the same day. Data analysis has also shown that a greater number of higher risk patients, ASA II and III, were not requiring in-patient admission and were discharged as a day case. One limitation is that readmission rates are not assessed. These are likely to be low as the follow-up telephone call 24-48 hours later would pick up the majority of such incidents and at present, surgeons are not indicating a concern on this side.

1) British Association of Day Surgery. BADs Directory of Procedures & National Dataset. [Cited May 2024]. Available from URL <https://bads.co.uk/for-members/bads-directory-of-procedures-national-dataset/>

2) British Association of Day Surgery. Centre for Perioperative Care and Getting it Right First Time. National Day Surgery Delivery Pack. [Cited May 2024]. Available from URL [https://www.gettingitrightfirsttime.co.uk/wp-content/uploads/2020/10/National-Day-Surgery-Delivery-Pack\\_Sept2020\\_final.pdf](https://www.gettingitrightfirsttime.co.uk/wp-content/uploads/2020/10/National-Day-Surgery-Delivery-Pack_Sept2020_final.pdf)