



REPORT TO: PERFORMANCE AND AUDIT COMMITTEE – 22 SEPTEMBER 2020
REPORT ON: IMPACT OF REPEAT ELECTIVE ACTIVITY ON READMISSION RATES
REPORT BY: CHIEF FINANCE OFFICER
REPORT NO: PAC3-2020

1.0 PURPOSE OF REPORT

1.1 The purpose of this report is to provide an analysis of the impact of repeat elective activity on readmissions performance.

2.0 RECOMMENDATIONS

It is recommended that the Performance and Audit Committee (PAC):

- 2.1 Note the content of this report and the analysis of readmissions, including the impact of recording practices for day cases within NHS Tayside on performance against the national readmissions indicator (section 5 and appendix 1).
- 2.2 Note that the Unscheduled Care Board will now receive data based on the national methodology and data excluding day cases to support monitoring of readmissions performance and inform subsequent improvement actions (section 6).
- 2.3 Instruct the Unscheduled Care Board to consider the content of this report and review and update improvement actions relating to readmissions as appropriate.

3.0 FINANCIAL IMPLICATIONS

3.1 None.

4.0 BACKGROUND

- 4.1 Unscheduled hospital care is one of the biggest demands on Partnership resources. Whilst significant improvements have been made from the pre-integration baseline (2015/16) in some aspects of unscheduled care, specifically bed days lost to delayed discharge and emergency bed day rates and numbers, performance in relation to readmissions has remained an area for improvement for the Partnership.
- 4.2 In May 2018 the PAC received an in-depth analytical report for unscheduled care, including readmissions (Article VIII of the minute of the Dundee PAC on 29 May 2018 refers). At this time a range of ongoing improvement activities were described across the unscheduled care pathway, however there was not a specific focus on readmissions. In March 2019, a further in-depth analytical report was submitted to PAC (Article IV of the minute of the Dundee PAC on 25 March 2019 refers).
- 4.3 Readmissions performance is consistently reported through the Partnership's Quarterly Performance Reports. As quarterly performance reporting is focused on the National Health and Wellbeing Indicators readmissions performance is measured using a single indicator; 'rate of

readmissions to hospital within 28 days of discharge per 1,000 admissions' (national indicator 14). Data is reported for all ages and locality and national benchmarking information is also provided.

4.4 As at Quarter 2 2019/20 performance against the national readmissions indicator can be summarised as:

Benchmarking – ISD MSG data

- The rate of readmissions was higher in Dundee than the Scottish rate.
- Dundee was the poorest performing Partnership in Scotland.

Difference from 2015/16 Baseline to 2018/19 Q2 - NHS Tayside BSU data

- 2.1% increase in Dundee rate, which is a deterioration in performance.

Performance Trend between 19/20 Q1 and 19/20 Q2 - NHS Tayside BSU data

- Increased rate of readmission between 2018/19 Q1 and Q2 across 3 of the 8 localities.
- Decreased rate of readmission between 2018/19 Q1 and Q2 across 4 of the 8 localities
- One locality stayed the same between 2018/19 Q1 and Q2
- Locality showing biggest increase was Lochee (6.7%).
- Locality showing smallest increase was East End (1.6%).

Variation across Localities in 2018/19 Q2 - NHS Tayside BSU data

- The highest readmission rate per 1,000 population was in Lochee (126).
- The lowest readmission rate per 1,000 population was in North East (93).

Since 2016/17 performance against the national readmissions indicator has been consistently poor and an identified area for improvement. Improvement activity for readmissions is led by the Unscheduled Care Board.

5.0 READMISSIONS PERFORMANCE ANALYSIS

5.1 As at 2017/18, NHS Tayside has the second highest 28 day readmission rate per 1,000 admissions in Scotland.

5.2 As at 2017/18, NHS Tayside has the lowest inpatient admission rate per 1,000 population in Scotland.

5.3 The low admission rate is driven by the low day case rate. NHS Tayside had the lowest day case admission rate per 1,000 population in Scotland; this rate was less than half of that for NHS boards with similar sized populations such as NHS Fife and NHS Grampian.

5.4 For all day cases in NHS Tayside, only 3% were coded as repeat planned day cases, whereas across all of Scotland, 34% were coded as repeat planned day cases.

5.5 Return outpatient appointments as a rate of the population were highest in NHS Tayside.

5.6 Comparing repeat elective activity in NHS Tayside to the other Hospital Board of Treatments it is apparent that many procedures are coded as repeat outpatients in NHS Tayside, such as Chemotherapy and endoscopic examination of the bladder, whereas the same procedures are coded as repeat day cases in other boards. Coding these procedures as day cases will help reduce the readmission rate in other boards whilst NHS Tayside will be disadvantaged by coding these procedures as outpatients.

5.7 Between 2006/07 and 2016/17, NHS Tayside has seen a 76% decrease in repeat day case recordings and a 209% increase in repeat outpatient appointment recordings.

5.8 If NHS Tayside had seen an increase in all admissions between 2006/07 and 2016/17, similar to the Scottish percentage increase, then NHS Tayside would have a 28 day readmission rate similar to the Scottish rate.

- 5.9 In summary, data shows that NHS Tayside records higher levels of follow-up contact with patients following a hospital admission as outpatient appointments, rather than day cases, compared to other NHS Boards across Scotland. The methodology for the national indicator for readmissions includes day cases within its denominator and therefore a low day case rate increases the resultant readmission rate. When recording practices for day case rates are taken into account Dundee's performance against the national readmissions indicator is similar to the Scottish rate. It is therefore apparent that a significant proportion of 'poor performance' against the national indicator for readmissions relates to data recording practices rather than other factors.
- 5.10 Emergency readmissions rates is only one measure of clinical care outcomes. Other measures should be observed in conjunction with readmissions to obtain an overall picture of clinical care. Such measures include the hospital standardised mortality rates (HSMR), clostridium difficile infection rates (C.Diff), combined MRSA/MSSA infection rates (SAB) and the patient satisfaction experience survey (PSES). Ninewells Hospital and Perth Royal Infirmary both perform strongly, in comparison to the rest of Scotland, in these four safety measures.

6.0 INFORMATION PROVIDED TO THE UNSCHEDULED CARE BOARD

- 6.1 Local management information that excludes day cases from the denominator has been provided to the Unscheduled Care Boards to enable 'like for like' benchmarking. This data is provided for each of the three Tayside Partnerships and for benchmarking across Scotland. Alongside this the Unscheduled Care Board will continue to receive data, both local and benchmarking, produced through the national methodology.
- 6.2 Providing both datasets to the Unscheduled Care Board will support them to more effectively monitor and analyse performance relating to readmissions and identify areas for improvement.
- 6.3 PAC will continue to receive data for readmissions based on the national methodology only, however accompanying narrative will take account of the Unscheduled Care Board's consideration of local management information that excludes day cases.

7.0 POLICY IMPLICATIONS

- 7.1 This report has been screened for any policy implications in respect of Equality Impact Assessment. There are no major issues.

8.0 RISK ASSESSMENT

Risk 1 Description	The risk of not reducing the readmissions could affect; outcomes for individuals and their carers and spend associated with readmissions if the Partnership's performance does not improve.
Risk Category	Financial, Governance, Political
Inherent Risk Level	Likelihood 3 x Impact 5 = Risk Scoring 15 (Extreme Risk)
Mitigating Actions (including timescales and resources)	<ul style="list-style-type: none"> - An in depth analysis of readmission data is included in this paper. - The Unscheduled Care Board is prioritising improvements in this area. - Senior Operational Managers will continue to be consulted with in order that findings can be used to make improvements.
Residual Risk	Likelihood 3 x Impact 3 = Risk Scoring 9 (High Risk)
Planned Risk Level	Likelihood 3 x Impact 3 = Risk Scoring 9 (High Risk)
Approval Recommendation	The risk level should be accepted with the expectation that the mitigating actions are taken forward.

9.0 CONSULTATIONS

9.1 The Chief Officer, Head of Health and Community Care, the Unscheduled Care Board and the Clerk were consulted in the preparation of this report.

10.0 BACKGROUND PAPERS

10.1 None.

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DATE: 11 February 2020

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APPENDIX 1



Repeat Elective Activity and its Impact on Readmission Rates

Stephen Halcrow (LIST)

date
2019

Local Intelligence Support Team (LIST), ISD Scotland

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Introduction

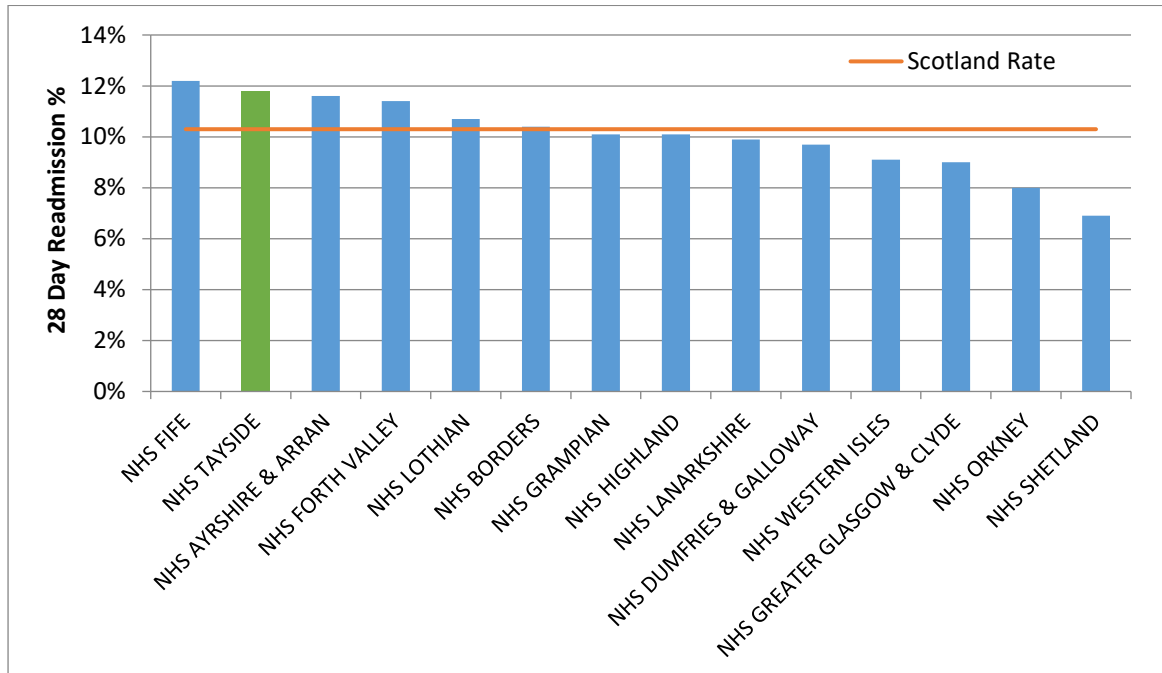
Over the years NHS Tayside has consistently had one of the highest 28 day readmission rates in Scotland (see figure 1). One possible explanation for this is that NHS Tayside has one of the lowest admission rates in Scotland, and in particular, day cases; this could be a factor in high readmission rates because if readmissions are unchanged but the denominator is lower due to less day cases, then the higher the rate of readmissions.

The annual 28 day readmission rate is calculated by:

Numerator	Annual Number of Emergency Readmissions within 28 Days from Last Hospital Discharge
Denominator	Annual Total Number of All Non-Elective and Elective Admissions (including Day Cases)

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Figure 1: 28 Day Readmission Rates for All Ages by NHS Board of Residence in 2017/18



Source: NSS Discovery Level 2 Readmissions Residence (extracted 19/08/2019)

Data Sources

The data used for this report is taken from the SMR01 (inpatient/daycase) dataset and the SMR00 (outpatient) dataset. Data is shown as at 2017/18, except where shown by procedures, which are shown as at 2016/17 due to the implementation of TRAK in June 2017.

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Main Points

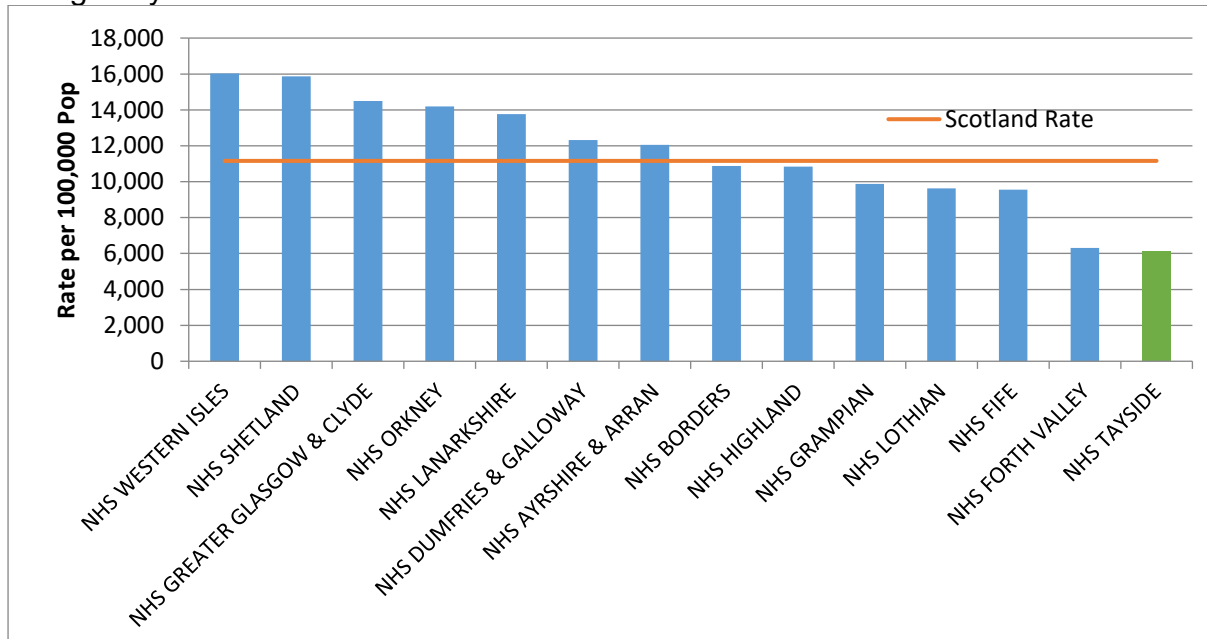
- As at 2017/18, NHS Tayside has the second highest 28 day readmission rate per 1,000 admissions in Scotland
- As at 2017/18, NHS Tayside has the lowest inpatient admission rate per 1,000 population in Scotland
- The low admission rate is driven by the low day case rate. NHS Tayside had the lowest day case admission rate per 1,000 population; this rate was less than half of the rate for NHS Fife and NHS Grampian
- Around 47% of all admissions in NHS Tayside are inpatients whereas Scotland sees only 27% of all admissions that are inpatients
- For all day cases in 2017/18, only 3% of NHS Tayside's were coded as repeat planned whereas 34% of all day cases in Scotland are coded as repeat planned
- Return outpatient appointments as a rate of the population are highest in NHS Tayside; 100,000 per 100,000 population compared to 77,500 for Scotland.
- Comparing repeat elective activity in NHS Tayside to the other Hospital Board of Treatments it is apparent that many procedures are coded as repeat outpatients in NHS Tayside whereas the same procedures are coded as repeat day cases in other boards.
- NHS Tayside has seen a 76% decrease in repeat day case recordings and a 209% increase in repeat outpatient appointment recordings between 2006/07 and 2016/17.
- If NHS Tayside had seen an increase in all admissions between 2006/07 and 2016/17, similar to the Scottish percentage increase, then NHS Tayside would have a 28 day readmission rate similar to the Scottish rate.

Analysis

Elective Admissions By Board of Residence

As a rate per 100,000 population, NHS Tayside had the lowest elective admission rates in Scotland in 2017/18 (figure 2). However, for inpatient elective admissions NHS Tayside rate is above the Scottish rate (figure 3) whereas for day case admissions NHS Tayside rate is the lowest in Scotland (figure 4).

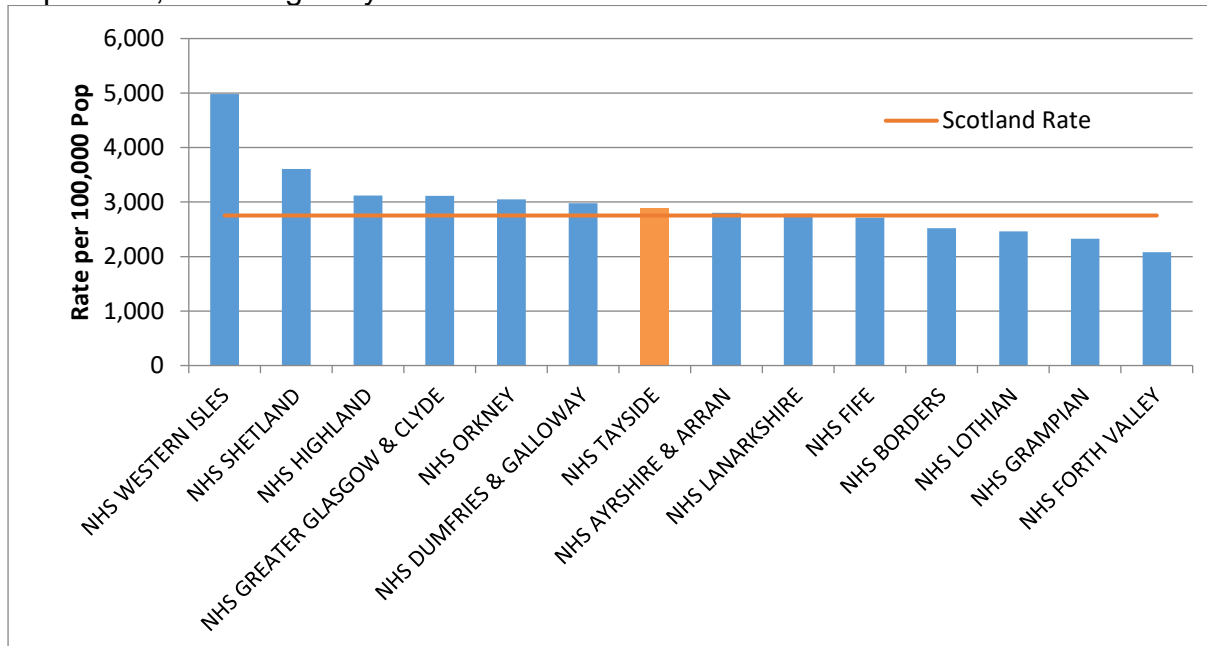
Figure 2: Number of All Elective Admissions, as a Rate per 100,000 Population, for All Ages by NHS Board of Residence in 2017/18



Source: NSS Acadme Boxi (extracted 19/08/2019)

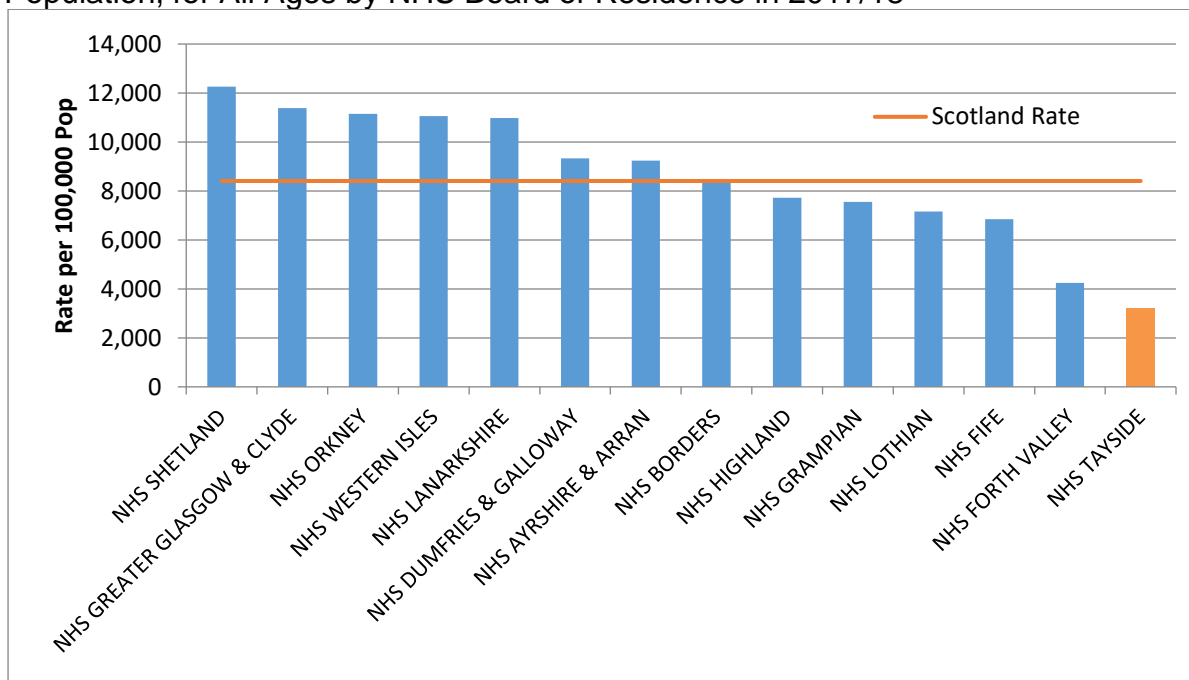
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Figure 3: Number of All Elective **Inpatient** Admissions, as a Rate per 100,000 Population, for All Ages by NHS Board of Residence in 2017/18



Source: NSS Acadme Boxi (extracted 19/08/2019)

Figure 4: Number of All Elective **Day Case** Admissions, as a Rate per 100,000 Population, for All Ages by NHS Board of Residence in 2017/18



Source: NSS Acadme Boxi (extracted 19/08/2019)

Elective Admissions By Board of Treatment

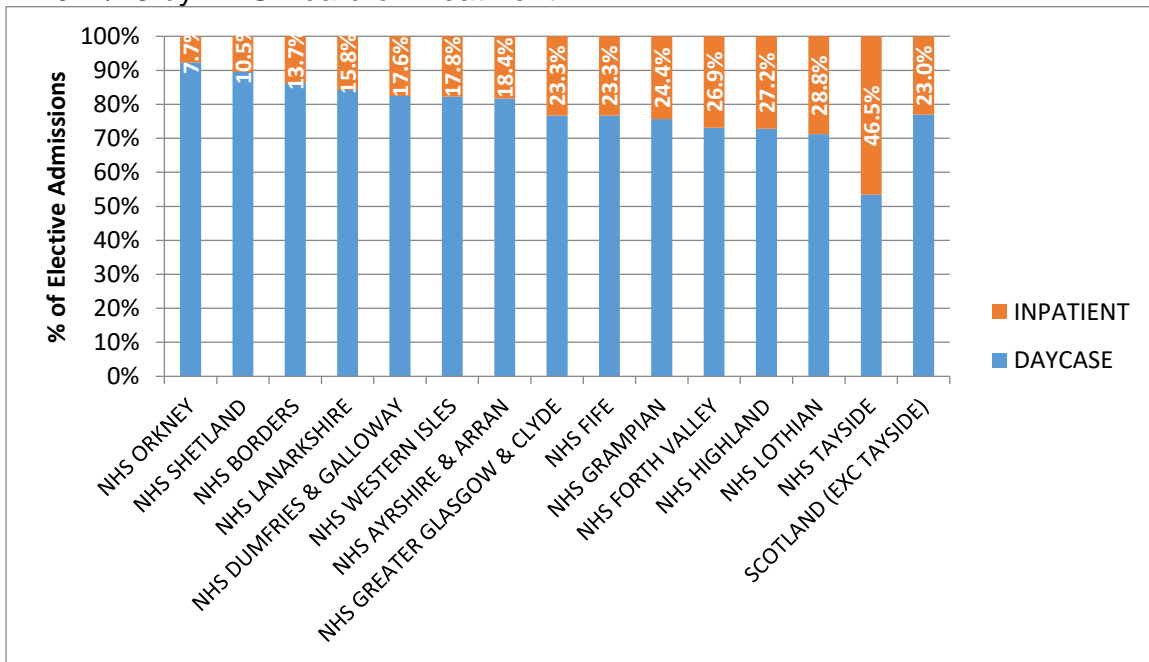
The split between elective inpatient admissions and elective day cases in 2017/18 showed that for NHS Tayside only 53% of all elective admissions were day cases compared to an average of 73% for all other boards (figure 5).

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All elective admissions, including day cases, are coded by 'Waiting List Type'. These are either coded as 'True Waiting List', 'Planned Repeat Waiting List', 'Not on Waiting List', 'Not Known' or 'Blank'. Figure 6 shows NHS Tayside had the lowest percentage of all elective day case admissions coded as 'Planned Repeat Waiting List' in Scotland; only 3% of all recorded day cases were coded as planned repeat compared to 34% of all other boards of treatment.

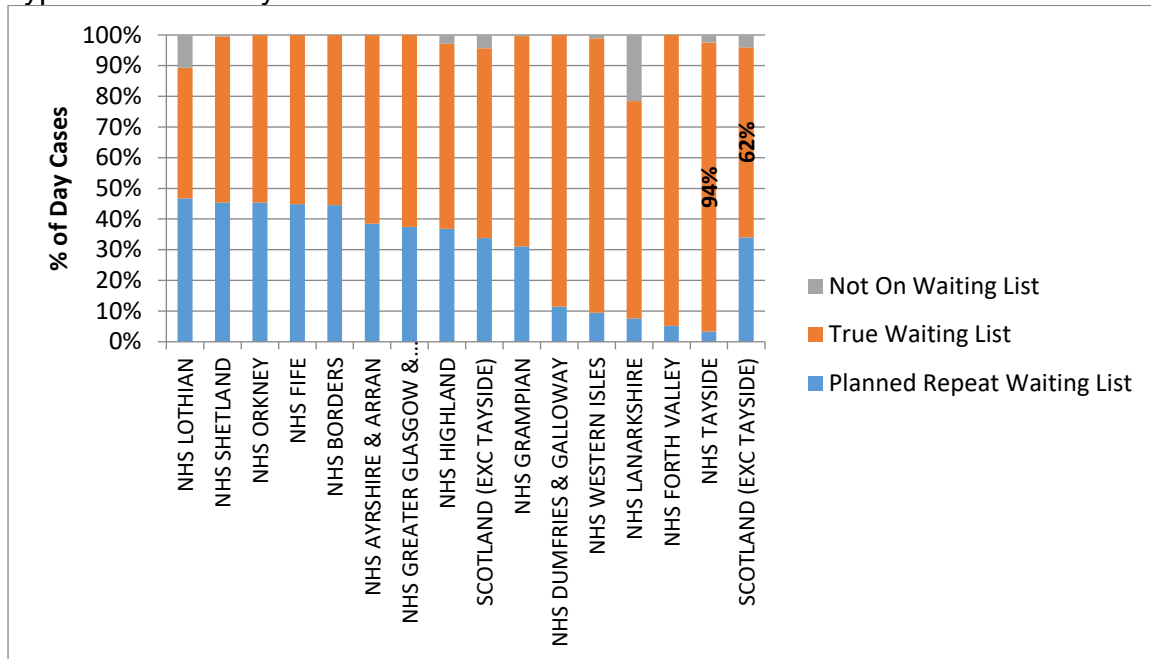
In terms of actual numbers of day case records recorded as planned repeats, NHS Tayside has fewer of these than NHS Shetland or NHS Orkney between 2015/16 and 2017/18.

Figure 5: Percentage of Elective Admissions Split between Inpatient and Day Cases in 2017/18 by NHS Board of Treatment



Source: NSS Acadme Boxi (extracted 19/08/2019)

Figure 6: Percentage of Elective Day Case Admissions Split between Waiting List Type in 2017/18 by NHS Board of Treatment



Source: NSS Acadme Boxi (extracted 19/08/2019)

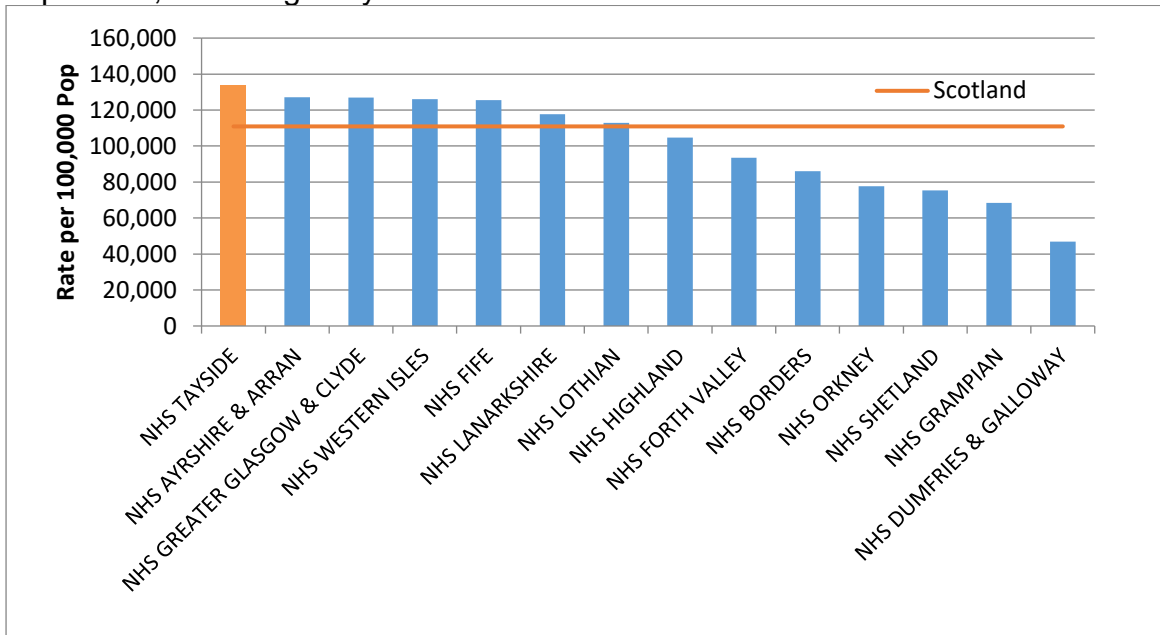
Is Repeat Elective Activity Captured as Return Outpatients in NHS Tayside?

NHS Tayside had the highest outpatient appointments in Scotland as a rate per 100,000 population in 2016/17 with 134,000, compared to a Scottish rate of 111,000 (figure 7). However, when these were split between new outpatient appointments (figure 8) and return outpatient appointments (figure 9), it is apparent that it was the return outpatient appointments that were the driving force behind the high rates.

Table 1 and 2 shows that, for the same procedures, NHS Tayside has noticeably less repeat day cases but noticeably higher return outpatient appointments than the other large hospital boards. Table 3 shows that NHS Tayside has seen a large percentage reduction in repeat day cases over the last ten years but an even greater percentage increase in return outpatient appointments over the same period.

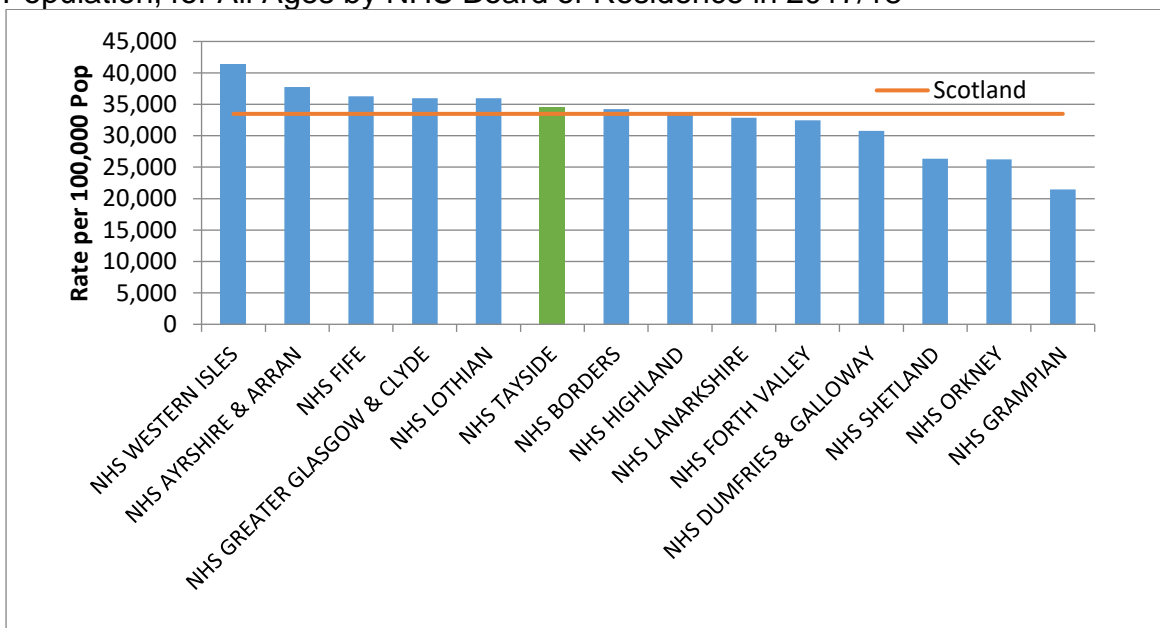
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Figure 7: Number of **All** Outpatient Appointments, as a Rate per 100,000 Population, for All Ages by NHS Board of Residence in 2017/18



Source: NSS Acadme Boxi (extracted 19/08/2019)

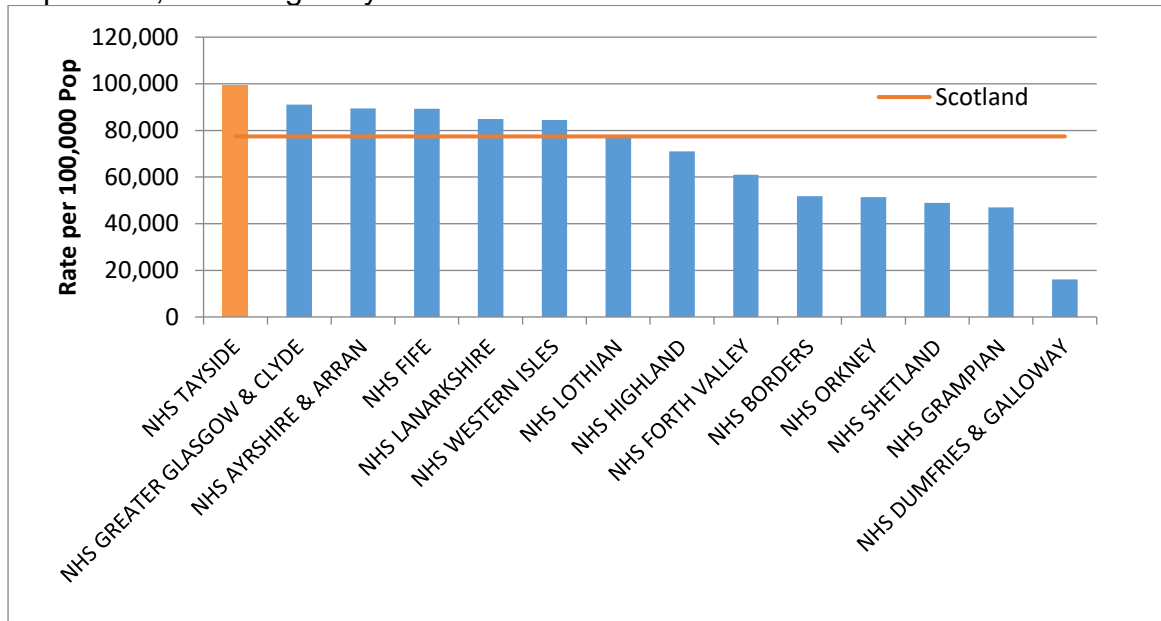
Figure 8: Number of **New** Outpatient Appointments, as a Rate per 100,000 Population, for All Ages by NHS Board of Residence in 2017/18



Source: NSS Acadme Boxi (extracted 19/08/2019)

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Figure 9: Number of **Return** Outpatient Appointments, as a Rate per 100,000 Population, for All Ages by NHS Board of Residence in 2017/18



Source: NSS Acadme Boxi (extracted 19/08/2019)

Table 1: Number of Repeat Day Case Admissions in 2016/17 by Procedures and by NHS Board of Treatment

Procedure	NHS Grampian	NHS GG&C	NHS Lothian	NHS Tayside
Delivery Of Chemotherapy For Neoplasm	4,497	21,600	13,916	52
Continuous Infusion Of Therapeutic Substance	2,193	9,092	2,877	588
Other Blood Transfusion	637	3,135	1,781	52
Diagnostic Endoscopic Examination Of Bladder	890	2,639	89	23
Subcutaneous Injection	760	888	1,026	11

Source: NSS Acadme Boxi (extracted 21/08/2019)

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Table 2: Number of Return Outpatient Appointments in 2016/17 by Procedures and by NHS Board of Treatment

Procedure	NHS Grampian	NHS GG&C	NHS Lothian	NHS Tayside
Delivery Of Chemotherapy For Neoplasm	0	2,965	0	6,026
Continuous Infusion Of Therapeutic Substance	0	220	0	2,225
Other Blood Transfusion	*	30	0	883
Diagnostic Endoscopic Examination Of Bladder	0	290	456	1,102
Subcutaneous Injection	8	663	8	440

Source: NSS Acadme Boxi (extracted 21/08/2019)

Note: * is used for values less than 5

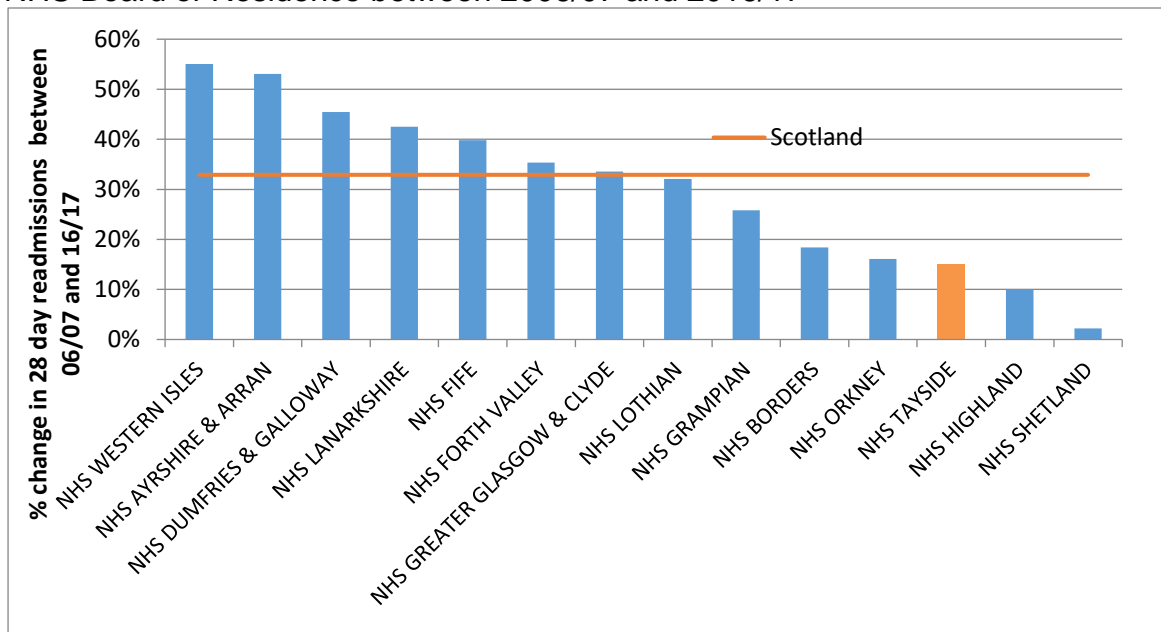
Table 3: Number of All Inpatient and Day Case Admissions and All Outpatient Appointments in NHS Tayside Board of Treatment in 2006/07 and 2016/17

Activity Type	2006/07	2016/17	% Change
All Admissions	83,460	79,135	-5.2%
All Inpatient Admissions	59,908	62,738	4.7%
Elective Inpatient Admissions	16,665	14,166	-15.0%
Non Elective Inpatient Admissions	43,243	48,572	12.3%
Day Cases	23,552	16,397	-30.4%
True Waiting List	16,217	14,649	-9.7%
Planned Repeat Waiting List or Not On Waiting List	7,335	1,748	-76.2%
All Outpatient Appointments	273,133	595,443	118.0%
New Outpatient Appointments	130,856	155,378	18.7%
Return Outpatient Appointments	142,273	440,060	209.3%

Impact from Change in Coding to 28 Day Readmission Rates

Figure 10 shows that, between 2006/07 and 2016/17, NHS Tayside has seen one of the smallest percentage change increases in the number of 28 day readmissions across Scotland whilst Figure 11 shows that NHS Tayside is one of the few boards to actually see a decrease in overall admissions. Hypothetically, if the number of admissions in NHS Tayside increased similar to the percentage increase seen across Scotland, then with all other things equal, the 28 day readmission rates in 2016/17 for NHS Tayside would have been around the Scottish average (Figure 12).

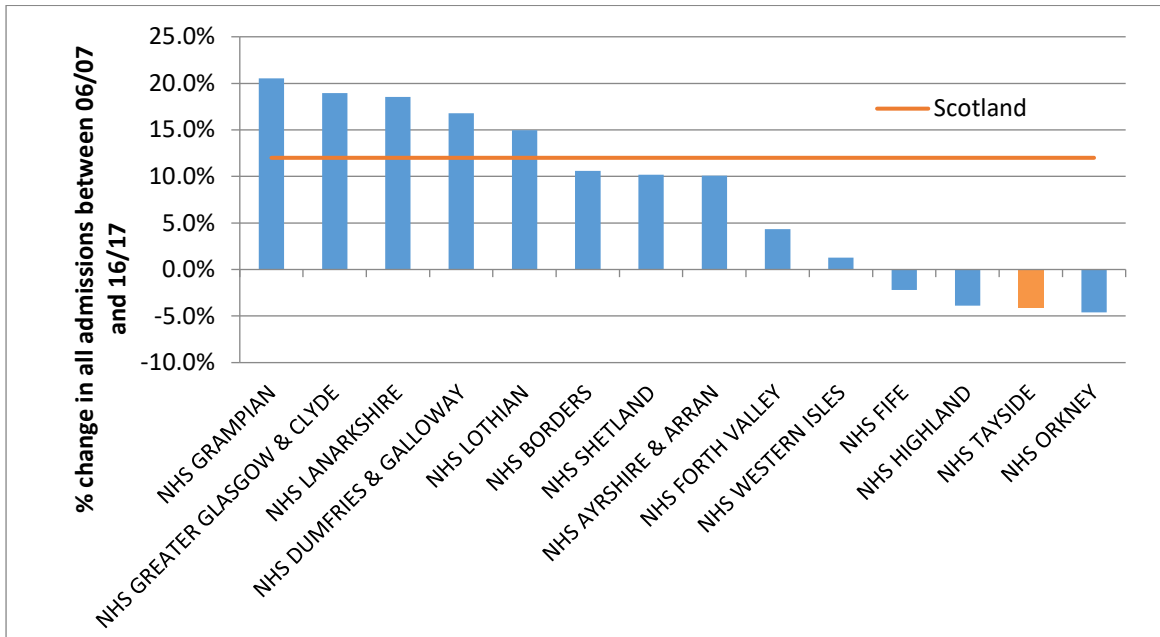
Figure 10: Percentage Change in the Number of 28 Day Readmission Numbers by NHS Board of Residence between 2006/07 and 2016/17



Source: Discovery SPSS Syntax for 28 Day Readmission Rates (ISD)

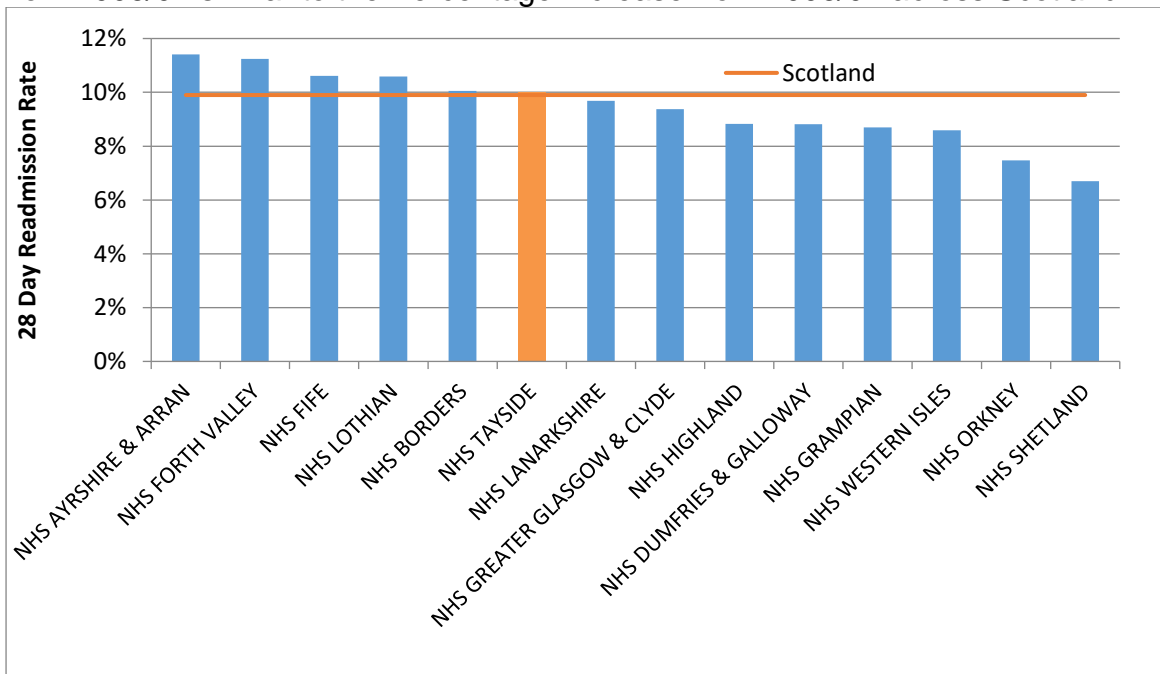
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Figure 11: Percentage Change in the All Admission Numbers by NHS Board of Residence between 2006/07 and 2016/17



Source: Discovery SPSS Syntax for 28 Day Readmission Rates (ISD)

Figure 12: Hypothetical Scenario showing Rate of 28 Day Readmissions in 2016/17 by NHS Board of Residence if NHS Tayside had seen an Increase in All Admissions from 2006/07 similar to the Percentage Increase from 2006/07 across Scotland



Source: Discovery SPSS Syntax for 28 Day Readmission Rates (ISD)

