POMH-UK
PRESCRIBING OBSERVATORY FOR MENTAL HEALTH-UK

RC PSYCH
ROYAL COLLEGE OF PSYCHIATRISTS

Prescribing high dose and combined antipsychotics on adult psychiatric wards

POMH-UK Quality Improvement Programme. Supplementary audit 1g & 3d

Prepared by the Prescribing Observatory for Mental Health-UK for:

East London NHS Foundation Trust

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How to read this report

The term 'Trust' has been used throughout this report to refer to all healthcare organisations that participated.

Executive summary
An executive summary of this report starts on page 7. This provides an overview of national performance against the practice standards. It also provides some broader observations relating to national prescribing practice (page 13) that may usefully prompt local reflection and discussion.

Practice standards

Page 7 of this report defines the standards against which prescribing practice was measured in this quality improvement programme (QIP). These practice standards were derived from evidence-based guidelines and agreed by an expert advisory group.

Method

Page 15 provides an outline of the methodology of the QIP. This includes the nature of the clinical audit data collected and how these were checked.

National level results

This section begins on page 16. The demographic and clinical characteristics of the total patient audit sample are described. The findings of the data analyses are presented in graphs and tables, primarily to show the extent to which clinical prescribing across the participating services is meeting the practice standards.

Trust level section

The analyses presented in this section, starting on page 25, allow Trusts to compare the quality of their local practice, in absolute terms, with the practice standards and, in relative terms, with that of the other, anonymous, participating Trusts.

Each of the benchmarked graphs in this section provides evidence of performance on a particular aspect of prescribing practice across all Trusts individually and the total national sample (TNS). In each figure, the Trust(s) on the left-hand side is closest to meeting the relevant standard while the Trusts on the right are further away from meeting the standard.

If your Trust submitted data for this QIP, this section will also include some individual charts for your Trust.

Team level results

This section starts on page 51. The figures allow individual clinical teams in each Trust to compare their practice with each other and against the national data. For each figure, the team(s) on the left-hand side is closest to meeting the standard. The bar on the far right shows the total national sample (TNS) and the bar next to this shows the overall Trust performance.

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Executive Summary

Background

The Prescribing Observatory for Mental Health (POMH-UK) runs audit-based quality improvement programmes (QIPs) that focus on prescribing practice. Membership of POMH-UK is open to all NHS, private and not-for-profit providers of mental health services (NHS Trusts/healthcare organisations) in the UK. This report focuses on a benchmarking audit of the prescribing of high-dose and combination antipsychotics. The clinical services included in this audit are inpatient acute adult and PICU (the seventh occasion on which these services had participated in this audit), forensic (the fourth occasion these services had participated) and adult rehabilitation and complex needs (participating for the second time).

Fifty-eight Trusts participated in this benchmarking audit submitting data on 10072 patients from 761 clinical teams.

Fifty-seven Trusts submitted data on 5159 patients from 402 acute/PICU clinical teams.

Thirty-eight Trusts submitted data on 1350 patients from 107 rehabilitation/complex needs clinical teams.

Forty-six Trusts submitted data on 3563 patients from 283 forensic clinical teams.

In some cases there are a number of teams who may work across more than one clinical setting.

PRACTICE STANDARDS FOR AUDIT:
1. The dose of an individual antipsychotic should be within its SPC/BNF limits.

2. Individuals receive only one antipsychotic at a time.

3. Where high-dose antipsychotics are prescribed, there should be a clear plan for regular clinical review including safety monitoring.

Key National and Trust Findings

In the total national sample (TNS), including patients from acute adult, PICU, forensic and rehabilitation/complex needs settings, a fifth (20%) were prescribed a high-dose. The majority of high-dose prescriptions were for combined antipsychotics (see Figure 7).

Performance against practice standard 1

Practice standard 1
The dose of an individual antipsychotic should be within its SPC/BNF limits
A 'high-dose' is defined here as a total daily dose (whether of a single antipsychotic or combined antipsychotics) greater than 100% of the maximum recommended daily dose.

In all clinical settings there has been a reduction overall in the proportion of patients prescribed high-dose antipsychotics over time. Trusts may like to compare how clinical practice in their services (shown by the black diamonds) compares with that in the total national sample with respect to; (1) the overall proportion of prescriptions that are for high-dose antipsychotics, and (2) changes in prescribing practice over time. Where there is no black diamond, the Trust did not participate in the audit on this/these occasion(s).

Figure 1. Proportion of patients (at each audit) in acute adult/PICU settings (in 2017, n=5159) in the total national samples and your Trust (in 2017, n=293) for whom the total daily prescribed dose of antipsychotic drugs including PRN is higher than BNF limits

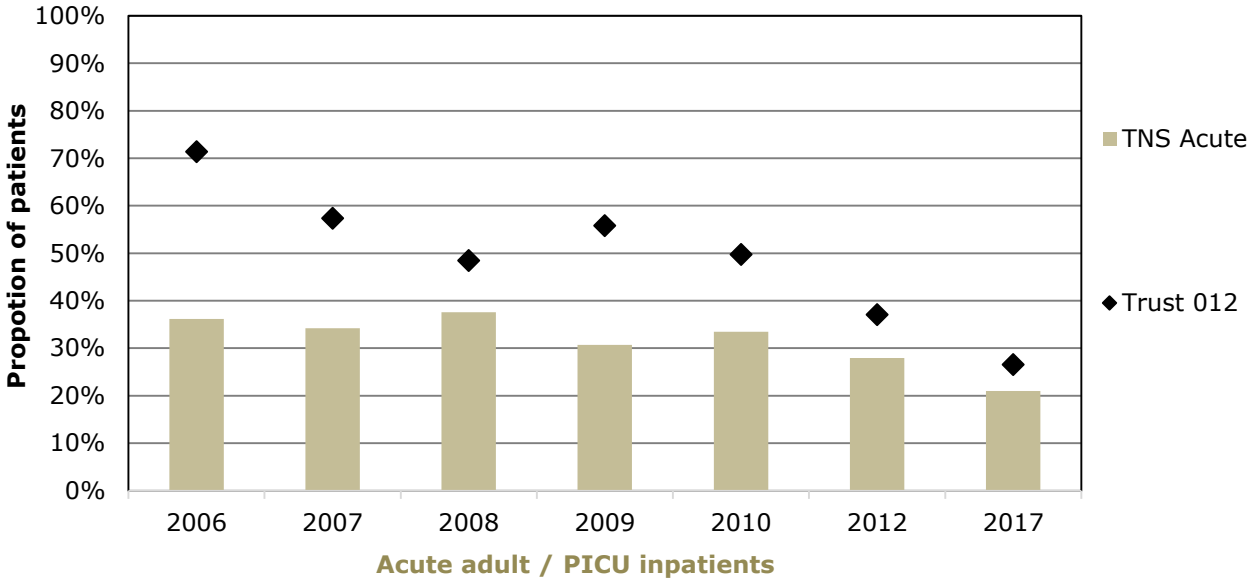
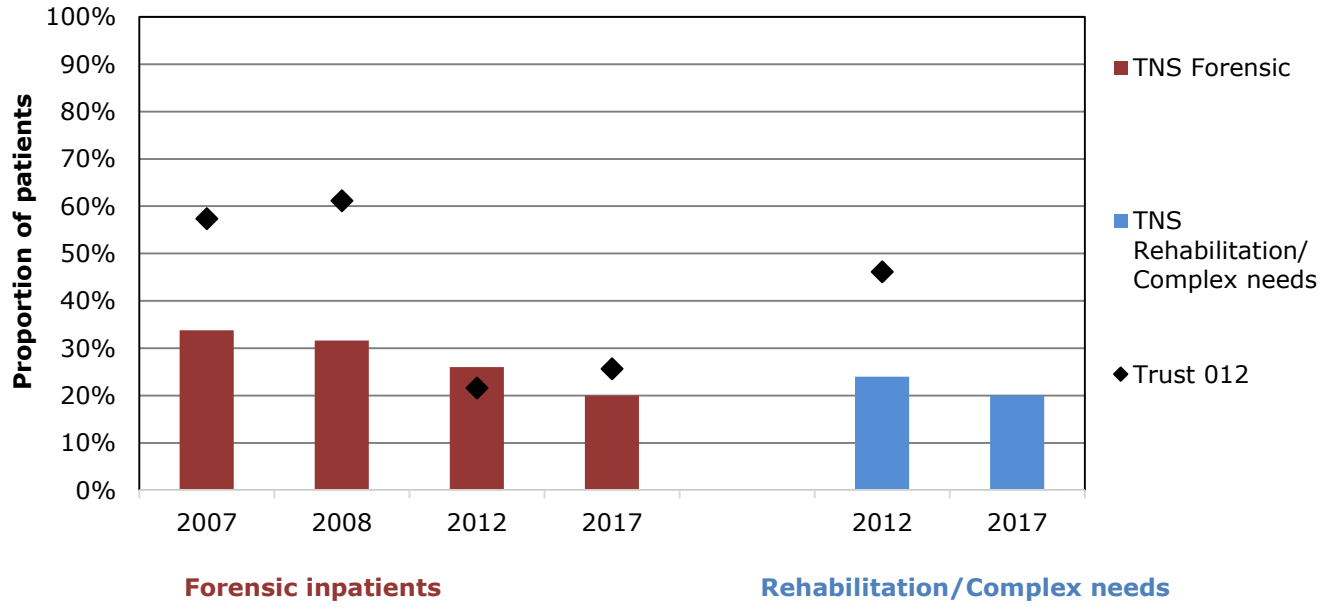


Figure 2. Proportion of patients in forensic (in 2017, n=3563) and rehabilitation/complex needs services (in 2017, n=1350) in the total national samples and your Trust (in 2017, n=187 and 0 respectively) for whom the total daily prescribed dose of antipsychotic drugs including PRN is higher than BNF limits

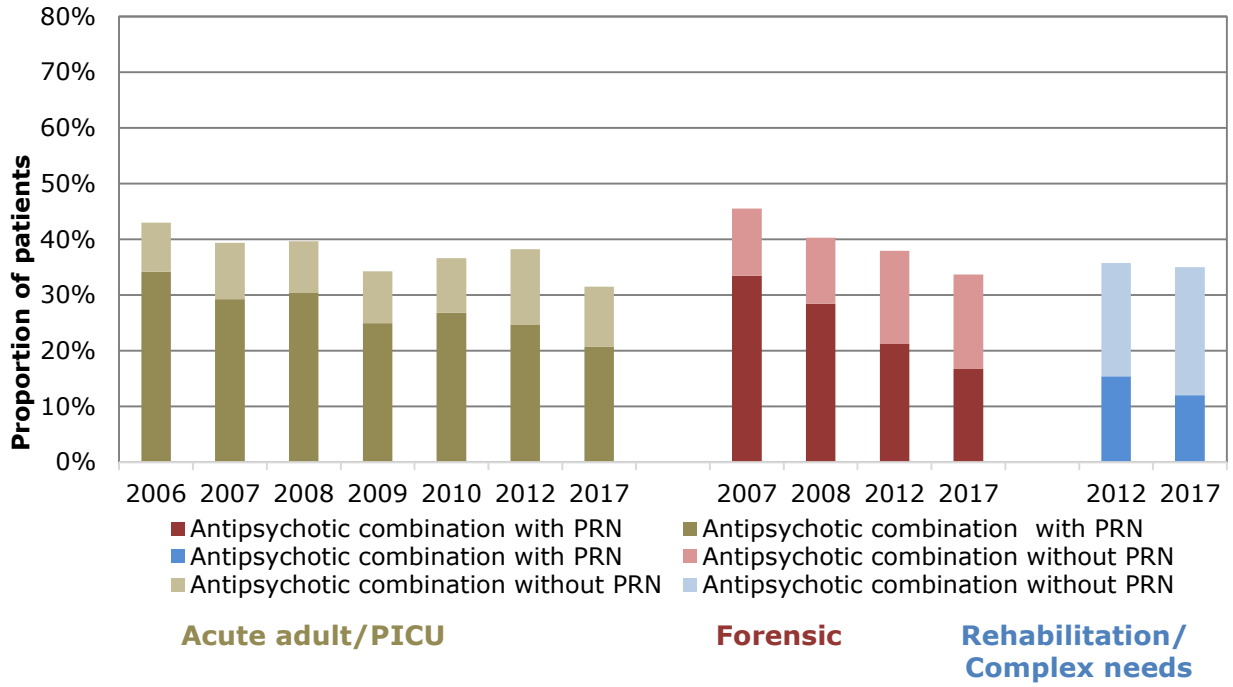


Performance against practice standard 2

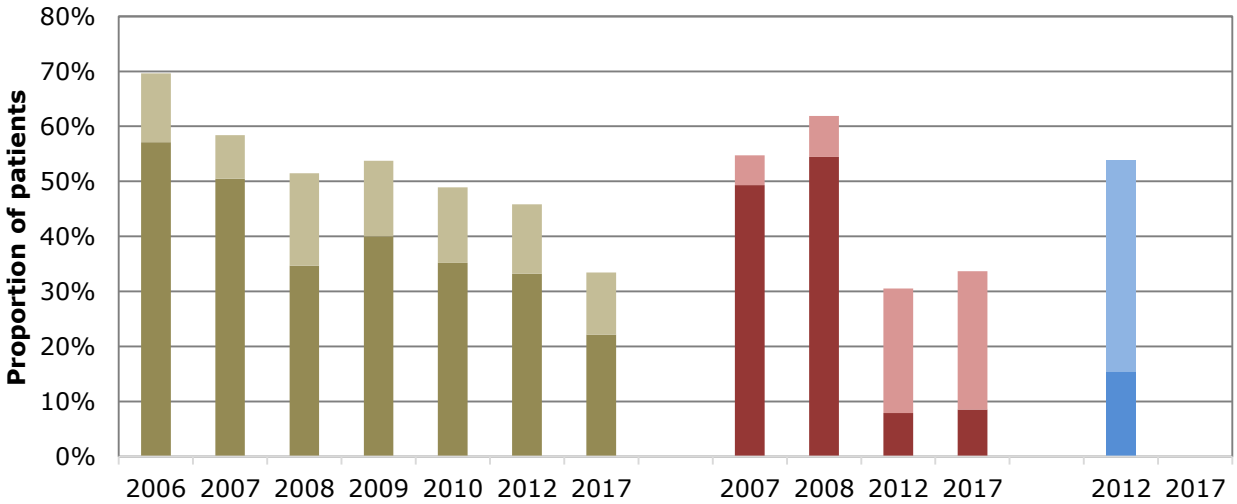
Practice standard 2
Individuals receive only one antipsychotic at a time.
This standard applies to 100% of individuals with schizophrenia. Exceptions: 'Individuals with schizophrenia who are receiving clozapine but who have not responded sufficiently; and individuals who are changing from one antipsychotic to another'.

Figure 3. Proportion of patients (at each audit) in acute adult/PICU (in 2017, n=5159), forensic (in 2017, n=3563) and rehabilitation/complex needs settings (in 2017, n=1350) in the total national sample (3a) and your Trust (3b) for whom a combination of antipsychotic drugs was prescribed

3a. Total National Sample



3b. Your Trust (in 2017, n=293, 187 and 0 respectively)



In all three clinical settings there has been a reduction over time in the proportion of patients in the national subsamples prescribed combined antipsychotics. In the total national sample overall most antipsychotic combinations included a PRN prescription. Trusts may like to compare how clinical practice in their services (Figure 3b) compares with that in the total national sample (Figure 3a), with respect to; (1) the overall proportion of prescriptions that are for combined antipsychotics; (2) the proportion of these prescriptions that include PRN, and (3) changes in prescribing practice over time. Where there are gaps in Figure 3b, the Trust did not submit data for these clinical services on this/these occasion(s).

The overall proportion of patients prescribed combined antipsychotics in rehabilitation/complex needs services was similar to that in acute/PICU and forensic services, although the proportion prescribed an antipsychotic to be used on a PRN basis was lower. This is the second occasion on which rehabilitation and complex needs services have participated in this audit.

Performance against practice standard 3

Practice standard 3
Where high-dose antipsychotics are prescribed, there should be a clear plan for regular clinical review including safety monitoring.

Performance against this standard is shown for patients who were prescribed regular high-dose antipsychotic medication (that is, PRN was not included in the high dose calculation). The intention of the prescriber is that these patients are exposed to high-dose antipsychotic medication every day.

Regular high dose medication was prescribed for only one patient in ten overall (see Figure 4), but this high-dose prescribing was not explicitly care planned for two thirds (see Figure 5a) of patients.

Figure 4. Proportion of patients prescribed <u>regular</u> high-dose antipsychotic medication (that is, PRN medication is not included in the high dose calculation) in the national service subsamples (n=497, 199 and 482 respectively) and in your Trust (n=36, 0 and 42 respectively)

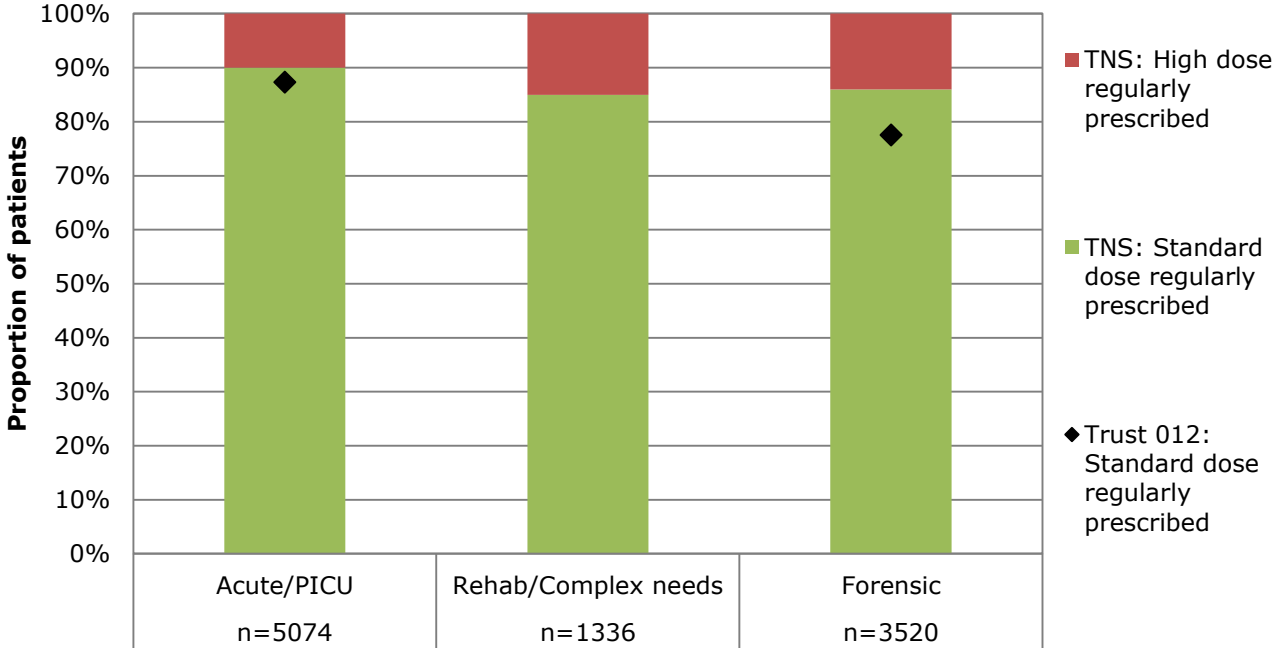
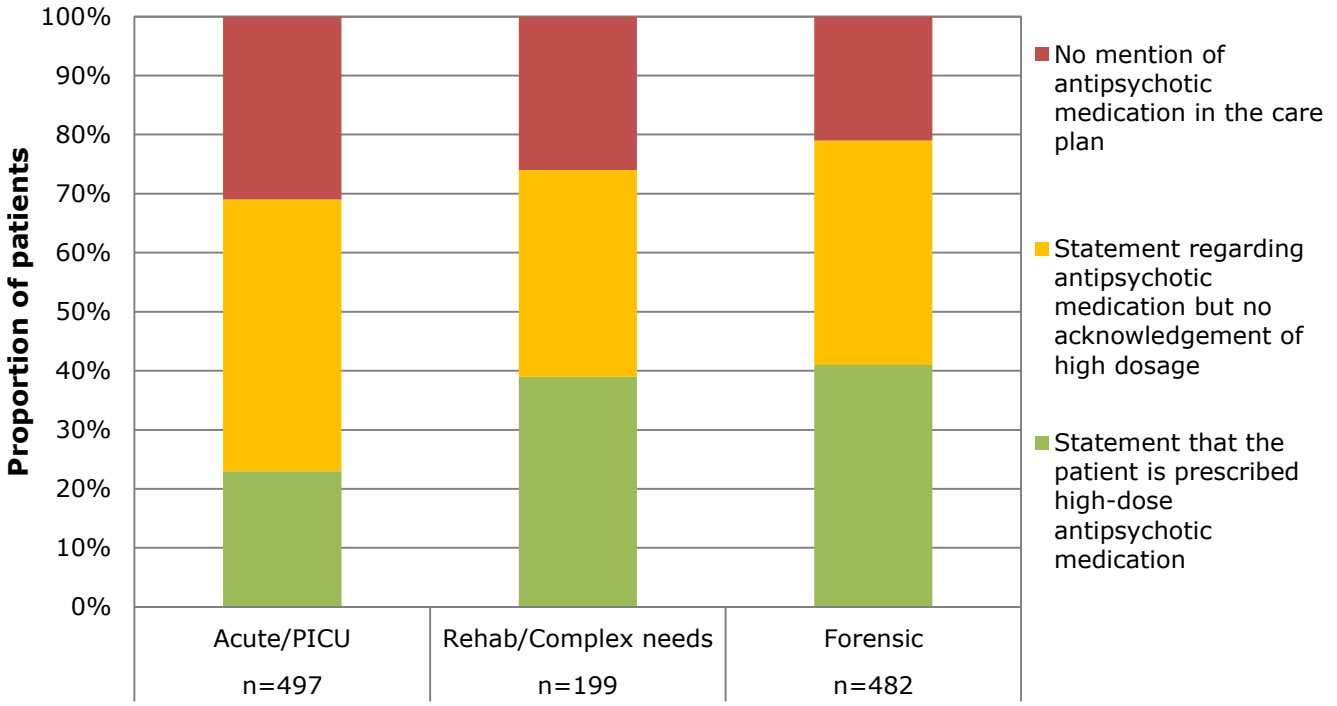


Figure 5. Proportion of patients prescribed <u>regular</u> high-dose antipsychotic medication in the national service subsamples (n=497, 199 and 482 respectively); where there was a statement in the care plan that high-dose antipsychotic medication was prescribed

5a. National service samples



5b: Your Trust (in 2017, n=36, 0 and 42 respectively)

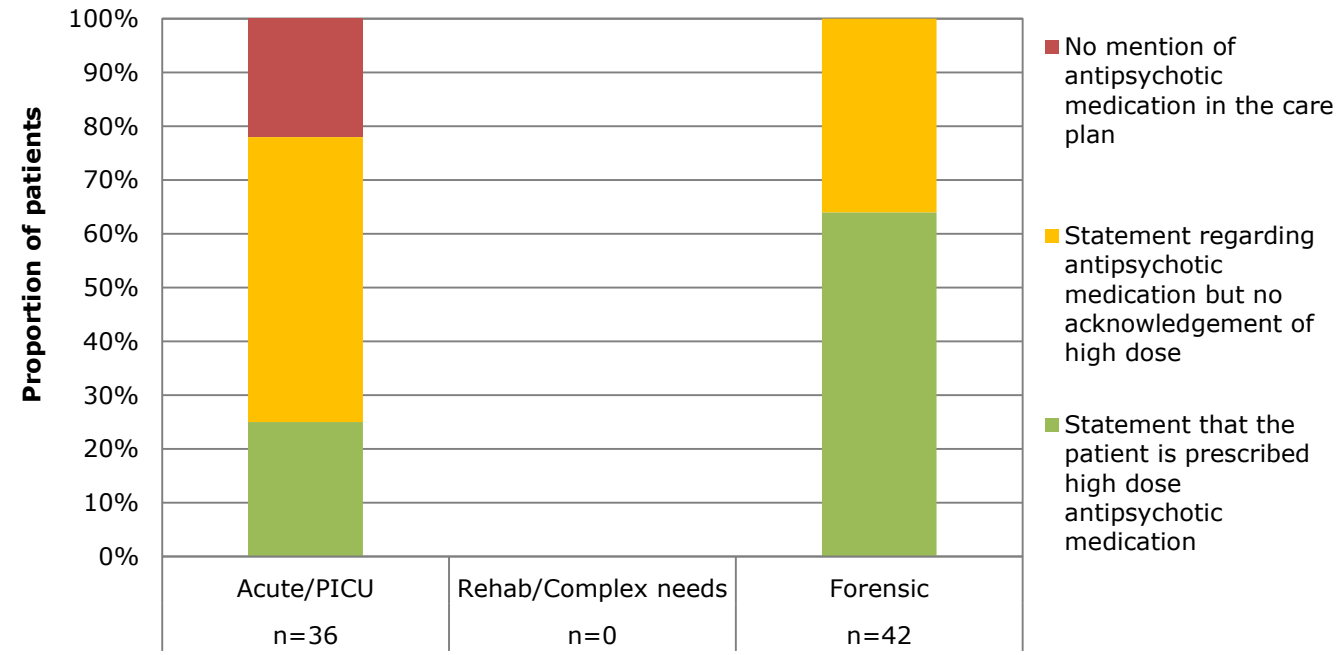
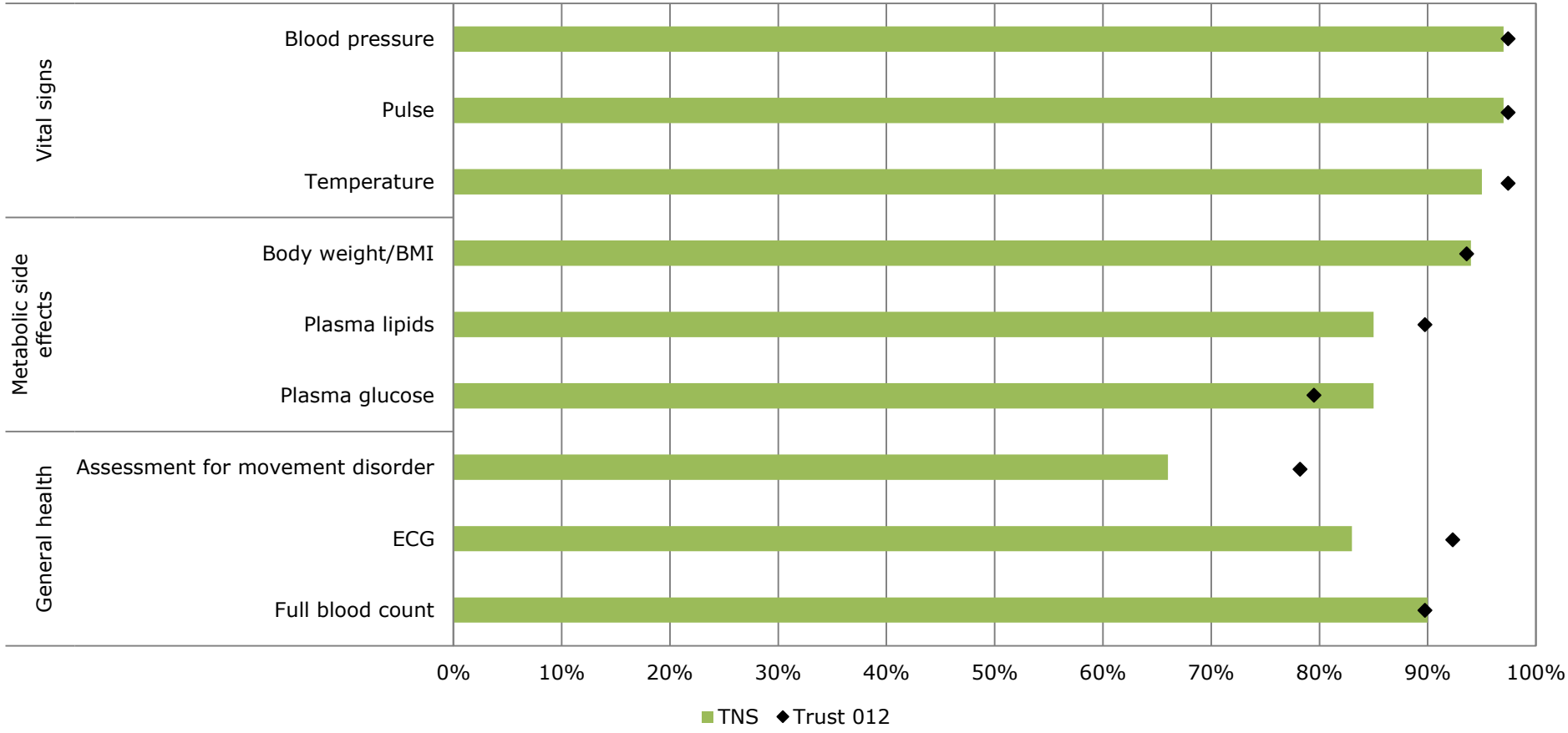


Figure 6. Proportion of patients regularly prescribed high-dose antipsychotic medication (n=1178) in the total national sample (acute adult/PICU plus forensic plus rehabilitation/complex needs settings) and your Trust (n=78) who had physical health checks and side effect monitoring in the past year

Given that high-dose antipsychotic prescribing was not explicitly documented in the majority of cases, it is likely that physical health checks were not directly related to such prescribing but were part of routine care.



The proportion of patients who had physical health checks and side effect monitoring was very similar across the three clinical settings.

Summary of this QIP 2006-2017

- There has been a steady but modest reduction over time in the proportion of patients prescribed high-dose and/or combined antipsychotic medication. Further data analysis showed that the fall in the proportion of those prescribed high-dose antipsychotic medication from 2012 to 2017 is not attributable to any differences between the two national samples in the demographic and clinical characteristics known to be associated with such prescribing.

- In the 2017 national sample, regular high-dose antipsychotic medication was prescribed for 10% of patients overall, only a third of whom had the high-dose prescription acknowledged in their care plan. Physical health monitoring was generally good for the patients on regular, high-dose antipsychotic medication, but assessment over the past year for antipsychotic-induced movement disorder had not been documented for about a third.

- The reduction seen in the prevalence of use of combined antipsychotics (antipsychotic polypharmacy) over time seems to be largely attributable to fewer prescriptions for PRN antipsychotic medication. This is consistent with the findings of the baseline audit of the POMH-UK QIP on the pharmacological management of acutely-disturbed behaviour: in the majority of cases, a benzodiazepine was administered rather than an antipsychotic (see CCQI263, 2017).

- In the 2017 national sample, the most common clinical reasons for prescribing regular combined antipsychotic medication differed across the clinical settings. For inpatients in acute adult ward/PICU settings, the most common reasons were a poor response to antipsychotic monotherapy or the overlap period while switching from one antipsychotic to another. For patients in forensic and rehabilitation/complex needs services, the most common reason was augmentation of clozapine with a second antipsychotic; in three-quarters of such cases, the augmenting antipsychotic was amisulpride or aripiprazole.

Introduction

POMH-UK

The Prescribing Observatory for Mental Health (POMH-UK) runs national audit-based quality improvement programmes open to all specialist mental health services in the UK. The aim is to help mental health services improve prescribing practice in discrete areas ('Topics').

Those interested in learning more about the role of POMH-UK should visit the website: http://www.rcpsych.ac.uk/pomh. There are also reviews of the POMH-UK quality improvement methodology in the following publications:

Barnes TRE, Paton C. The Prescribing Observatory for Mental Health 10-year report. Supporting rational, effective and safe prescribing in mental health services. Available at: https://www.rcpsych.ac.uk/pdf/10-year%20report.pdf

Barnes TRE, Paton C. The role of the Prescribing Observatory for Mental Health (Editorial). British Journal of Psychiatry 2012; 201: 428-429

Barnes TRE, Paton C. Improving prescribing practice in psychiatry. International Review of Psychiatry 2011; 23: 328-335

How to use this report

The audit results are divided into three sections:

- Section 1 (page 16) presents the results for the total national sample (TNS) i.e. combined data from all participating Trusts;
- Section 2 (page 25) presents each Trust's results benchmarked against other Trusts and the total national sample;
- Section 3 (page 51) presents team level data for your Trust benchmarked against other teams, your total Trust sample and the total national sample.

The results presented here allow you to compare your team's/Trust's practice against:

a. Treatment recommendations in nationally recognised guidelines, including those published by NICE (www.nice.org.uk/guidance/cg178), BAP (www.bap.org.uk/docdetails.php?docID=47) and RCPsych (www.rcpsych.ac.uk/usefulresources/publications/collegereports/cr/cr190.aspx);
b. The practice of other participating Trusts;
c. The practice of other participating teams in your Trust.

Data from each clinical team or Trust are presented by code only.

The POMH-UK Project Team does not know the identity of individual teams.

Only the Local POMH-UK lead for your Trust has the key to team codes for your Trust. You should contact this person if you need to identify data for your own particular team.

Clinical Background

Please refer to the baseline report for the clinical background. This can also be found in the 'members area' of the POMH website: www.rcpsych.ac.uk/pomh/members

Further analysis of your Trust's data

Ownership of data submitted to POMH-UK is retained by the Trust that provided it. See Appendix B for further information on data ownership. An Excel file containing the data submitted by your Trust has been made available to your Local POMH-UK Lead. Please contact this person if you wish to conduct further analyses on your data.

Method

The Prescribing Observatory for Mental Health (POMH-UK) invited all National Health Service (NHS) Trusts and other healthcare organisations (hereafter referred as Trusts) in the United Kingdom providing specialist mental health services to participate in a supplementary audit as part of a quality improvement programme (QIP) on prescribing high-dose and combination antipsychotics on adult psychiatric wards.

All Trusts and clinical teams were self-selected in that they chose to participate. All participating Trusts are listed in alphabetical order in Appendix C.

Subjects and settings

Each Trust was invited to include as many clinical teams as they wished. Teams were asked to audit the clinical records of patients on their case load currently being treated with antipsychotic medication.

Data collection

A copy of the data collection form can be found in Appendix D.

Submission of data

Each Trust was allocated a code number that was known only to the Trust and POMH-UK. Trusts were asked to allocate codes to participating services and eligible patients and, if they wished to, individual consultants. The key to these codes is held by the Trust and is not known to POMH-UK. Data coded in this way were entered onto an internet-based form and submitted to POMH-UK via a secure website.

Data cleaning

Data were cleaned to correct instances of obvious data entry error. Details of corrections are held on file by POMH-UK; please contact pomh-uk@rcpsych.ac.uk if you wish to examine these.

Data analysis

As in previous reports, the data were analysed at three levels:

1. **National data.** This section describes the demographic and clinical characteristics of patients in the total national sample, as well as the prescribing of high-dose and combination antipsychotics. The data were analysed in a variety of ways to facilitate understanding of the national picture and stimulate discussion in participating clinical teams.

2. **Trust level data.** The analyses conducted on the national data were repeated for each Trust. This allows Trusts to compare the demographic and clinical characteristics of their patients, and their performance against the audit standards, with the anonymised data from each of the other participating Trusts and the national data set as a whole.

3. **Service level data.** This allows Trusts and individual clinical teams to compare their practice with each other and against the national data.

Data were collected, stored and analysed using Formic (electronic survey software). All figures presented are rounded to zero decimal places for clarity of presentation. Therefore, the total percentages for some charts or graphs may not add up to 100%. The abbreviation 'TNS' on some charts refers to the combined data set of the 'total national sample'.

The local POMH-UK lead for each participating Trust will be sent an Excel dataset containing their Trust's data. This allows Trusts to conduct further analyses on their own data should they wish.

National level results

Fifty-eight specialist Mental Health Trusts or organisations (listed in Appendix A) within the UK participated in this audit of antipsychotic prescribing during March 2017. Data were received for 10072 patients from 761 clinical teams from adult, forensic and rehabilitation/complex needs wards.

Table 1. Detailed breakdown of clinical settings in the total national subsamples

Just over half the national sample occupied an acute adult or PICU bed, while just over a third were forensic inpatients. This profile is similar to the most recent, previous audit in this QIP (2012).

Acute adult / PICU	
General acute	4566 (45%)
PICU	593 (6%)

Rehabilitation/complex needs	
Rehabilitation/long stay wards	1173 (12%)
Treatment-resistant illness services	9 (<1%)
Complex needs services	168 (2%)

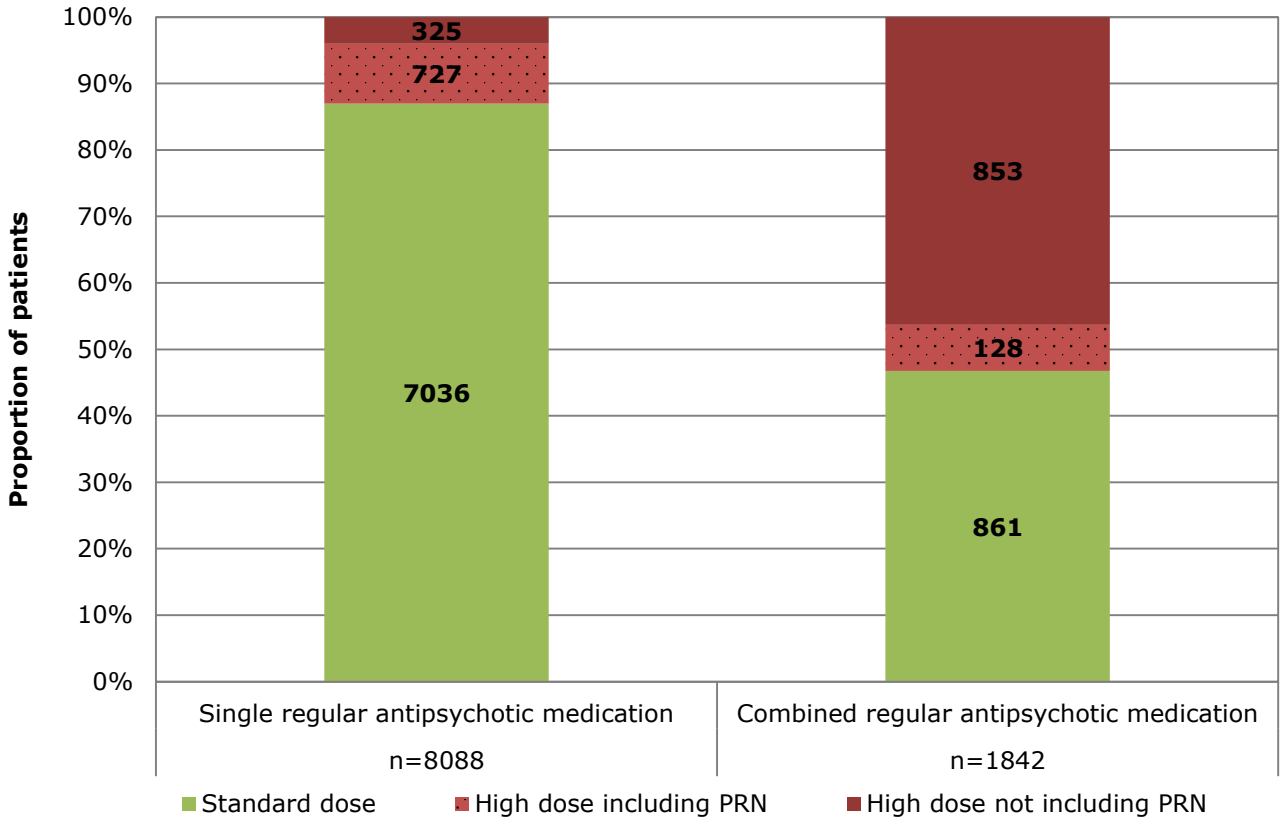
Forensic Services	3563 (35%)

Practice standard 1
The dose of an individual antipsychotic should be within its SPC/BNF limits
A 'high-dose' is defined here as a total daily dose (whether of a single antipsychotic or combined antipsychotics) greater than 100% of the maximum recommended daily dose

Practice standard 2
Individuals receive only one antipsychotic at a time.
This standard applies to 100% of individuals with schizophrenia. Exceptions: 'Individuals with schizophrenia who are receiving clozapine but who have not responded sufficiently; and individuals who are changing from one antipsychotic to another'.

In the total national sample (TNS), including patients from acute adult, PICU, forensic and rehabilitation/complex needs settings, a fifth (20%) were prescribed a high-dose. The majority of high-dose prescriptions were for combined antipsychotics. Figure 7 below shows the proportion of patients on either a single or combined regular antipsychotic medication who would be tipped into high dose by the administration of their PRN antipsychotic prescription.

Figure 7. Dose and regimen of antipsychotic prescriptions in the total national sample (n=10072)*



*142 (1%) patients prescribed PRN only.

Table 2. Top 5 single, regularly prescribed, antipsychotics at high-dose (n=325)

Drug	n (%)
Olanzapine	108 (33%)
Quetiapine	71 (22%)
Aripiprazole	51 (16%)
Haloperidol	35 (11%)
Risperidone	32 (10%)

The tables on the following three pages show the pattern of prescribing practice with respect to high-dose and combined antipsychotics by clinical setting.

In order to facilitate navigation of the report, the tables and figures are colour coded as below with respect to the three participating clinical service settings.

Adult and PICU

Rehabilitation / complex needs

Forensic

Adult and PICU patients (n=5159)

Table 3. Dosage of regular and PRN antipsychotic prescriptions (n=5159)

	Dose within BNF limits	High dose
General acute	3727 (82%)	839 (18%)
PICU	345 (58%)	248 (42%)
Total	4072 (79%)	1087 (21%)

Table 4. Prescription of a single regularly prescribed antipsychotic and combinations of antipsychotics, with and without PRN (n=5074)*

	Single antipsychotic	Single regular antipsychotic plus PRN**	Regular combination	Regular combination plus PRN**
General acute	3183 (63%)	678 (13%)	485 (10%)	148 (3%)
PICU	275 (5%)	180 (4%)	75 (1%)	50 (1%)
Total	3458 (68%)	858 (17%)	560 (11%)	198 (4%)

* 85 patients were prescribed PRN only.
** The antipsychotics most frequently prescribed on a PRN basis were haloperidol (58% of all PRN prescriptions), olanzapine (14%) and aripiprazole (14%).

In line with clinical expectations, patients in PICUs were more likely to be prescribed combined antipsychotic regimes that included PRN than were patients in acute adult wards. Those patients in PICU settings were twice as likely as those in acute ward settings to be prescribed a high dose.

In acute/PICU settings, a modest reduction in the prescribing of high-dose antipsychotics (see Fig 1) and the prescribing of antipsychotics on a PRN basis (see Fig 3) has been seen over time.

In 2006, the Medicines and Healthcare Regulatory Authority conducted a review of the cardiac safety of all antipsychotics available in the UK (MHRA, 2006); the specific concern was the potential for antipsychotics to increase the cardiac QTc interval and therefore be a risk factor for the development of torsades de pointes, a potentially serious cardiac arrhythmia. The MHRA review led to the recommendation that the wording 'avoid concomitant neuroleptics' should be added to the 'special warnings and precautions for use' section of the summary of product characteristics (SPC; product licence) of every antipsychotic. For haloperidol, the most widely prescribed PRN antipsychotic, concerns about QTc prolongation were considered significant enough to also justify the requirement for a baseline ECG before prescribing. Haloperidol continues to be the most widely prescribed PRN antipsychotic.

Rehabilitation / complex needs services (n=1350)

Table 5. Dosage of regular and PRN antipsychotic prescriptions (n=1350)

	Dose within BNF limits	High dose
Rehabilitation/ complex needs	1082 (80%)	268 (20%)

Table 6. Prescription of a single regularly prescribed antipsychotic and combinations of antipsychotics, with and without PRN (n=1336)*

	Single antipsychotic	Single regular antipsychotic plus PRN**	Regular combination	Regular combination plus PRN**
Rehabilitation/ complex needs	860 (64%)	109 (8%)	315 (24%)	52 (4%)

* 14 patients were prescribed PRN only.
** The antipsychotics most frequently prescribed on a PRN basis were haloperidol (57% of all PRN prescriptions), olanzapine (21%) and chlorpromazine (9%).

PRN antipsychotics were less likely to be prescribed for patients cared for by rehabilitation/complex needs services than for those cared for in acute adult/PICU settings. It is likely that this reflects the use of non-pharmacological strategies to manage behavioural disturbance in these patients who are well known to the service and therefore likely to have a treatment plan that has been carefully refined over time.

Forensic services (n=3563)

Table 7. Dosage of regular and PRN antipsychotic prescriptions (n=3563)

	Dose within BNF limits	High dose
Forensic	2859 (80%)	704 (20%)

Table 8. Prescription of a single regularly prescribed antipsychotic and combinations of antipsychotics, with and without PRN (n=3520)*

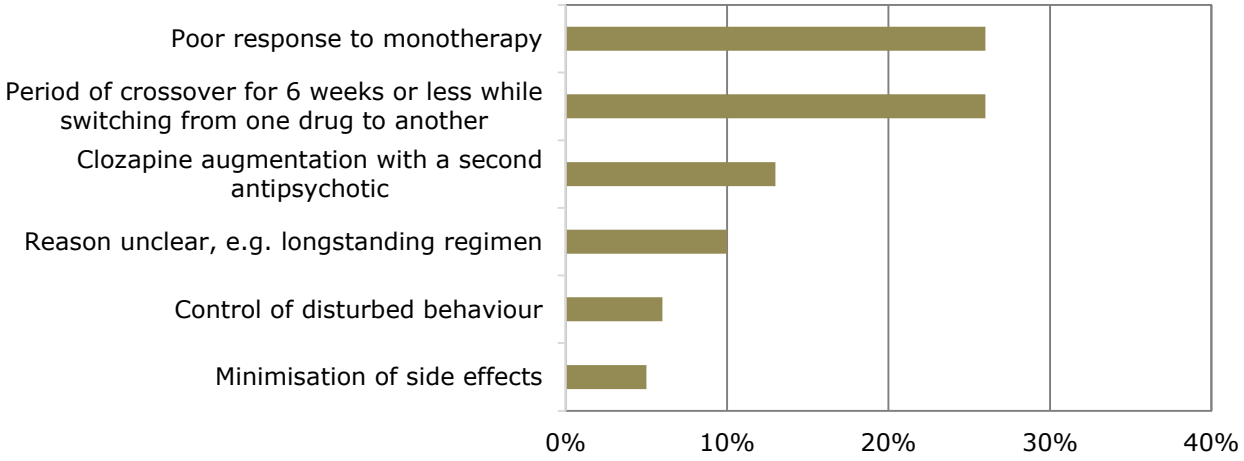
	Single antipsychotic	Single regular antipsychotic plus PRN**	Regular combination	Regular combination plus PRN**
Forensic	2321 (66%)	482 (14%)	604 (17%)	113 (3%)

* 43 patients were prescribed PRN only.
** The antipsychotics most frequently prescribed on a PRN basis were haloperidol (47% of all PRN prescriptions), olanzapine (14%) and chlorpromazine (13%).

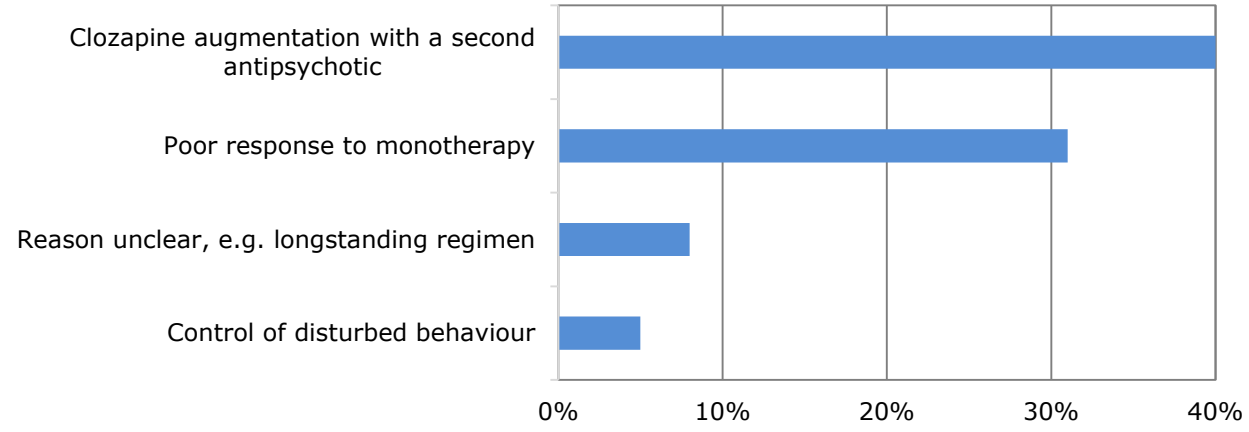
Figure 8. Summary of the main clinical reasons for regularly-prescribed antipsychotic combinations in acute/PICU (8a), rehabilitation/complex needs (8b) and forensic (8c) settings.

The most common clinical reasons for prescribing regular combined antipsychotics in acute adult and PICU settings - a short period of crossover while switching from one antipsychotic to another and poor response to monotherapy - reflect that patients in these settings are acutely unwell. In rehabilitation/complex needs and forensic services, there is a much higher prevalence of treatment-resistant illness and this is reflected in the most common clinical rationales for prescribing combinations in these settings - clozapine augmentation with a second antipsychotic and poor response to monotherapy.

8a. Acute/PICU services, n= 560



8b. Rehabilitation and complex needs services, n=315



8c. Forensic services, n=604

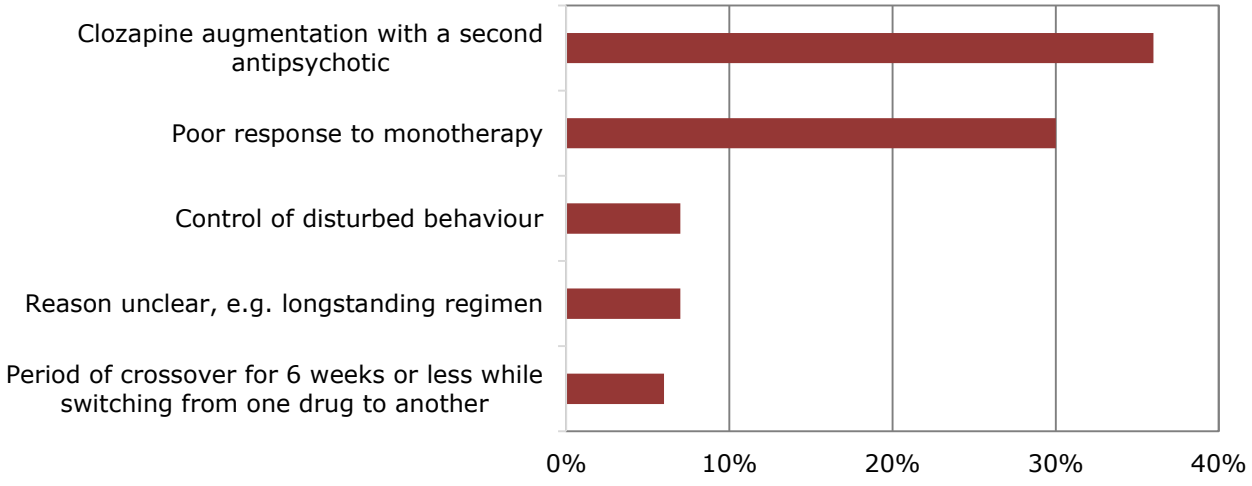
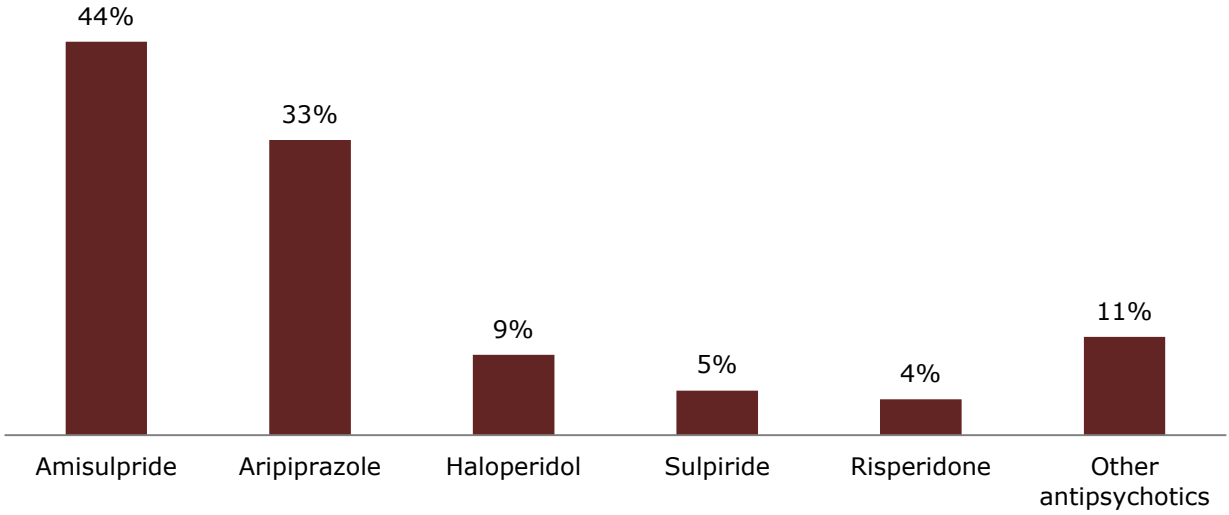


Figure 9. Antipsychotics chosen for clozapine augmentation; cases only included where the reason given for prescribing a combination was 'clozapine augmentation' (n=470)



Where clozapine was augmented with a second antipsychotic, the drug chosen in almost half of cases was amisulpride. Amisulpride is a potent D2 antagonist with a low propensity to compound the metabolic side effects of clozapine. Haloperidol and sulpiride have a similar pharmacological profile.

In a third of cases, the augmenting antipsychotic chosen was aripiprazole. A large randomised study failed to find any benefit for aripiprazole augmentation with respect to symptom reduction, but there was a modest advantage with respect to improvements in metabolic parameters (Fleischhacker et al, 2010). It is possible that one reason for aripiprazole being used in combination with clozapine is to try and mitigate the metabolic side effects associated with clozapine treatment.

Clozapine augmentation with a second antipsychotic has been shown to be a promising strategy in a number of open studies but when tested in high-quality randomised controlled trials any benefits are very modest. A recent meta-analysis of these data concluded that differences between the augmentation and placebo arms in high quality studies was not statistically significant (Galling et al, 2017). It is therefore important that the augmentation of clozapine with a second antipsychotic is viewed as an individual treatment trial with careful review of any effect on target symptoms and treatment-emergent side effects.

Other medication prescribed

Figure 10. Proportion of patients in acute adult/PICU, forensic and rehabilitation/complex needs settings who are prescribed other psychotropic medication in addition to antipsychotics

A high proportion of patients prescribed an antipsychotic drug were also prescribed one or more other psychotropic drugs. The most commonly co-prescribed drugs were benzodiazepines (particularly in acute settings), antidepressants, anticholinergics and valproate.

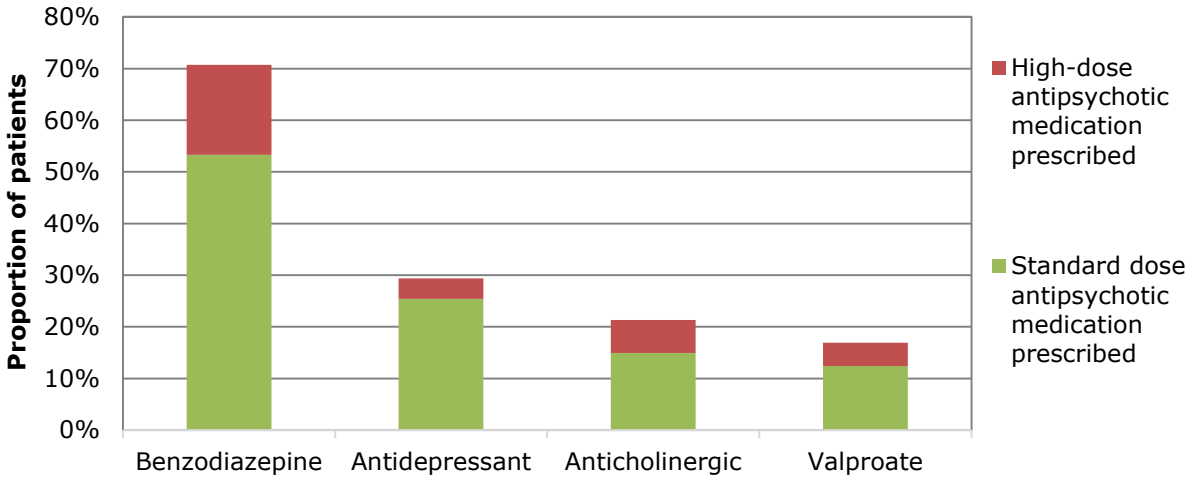
Where a benzodiazepine was prescribed, this was combined with PRN antipsychotic medication in 26% of patients in acute/PICU, 19% in rehabilitation/complex needs and 25% in forensic settings.

In all three settings these proportions were lower than the 38% of patients who were prescribed this combination in the most recent previous POMH audit of high-dose and combined antipsychotics in acute inpatient settings (2012). One possible explanation is that benzodiazepines alone are now being used more often in the management of behavioural disturbance. Figure 3a illustrates the decrease in prescribing of antipsychotics on a PRN basis over time.

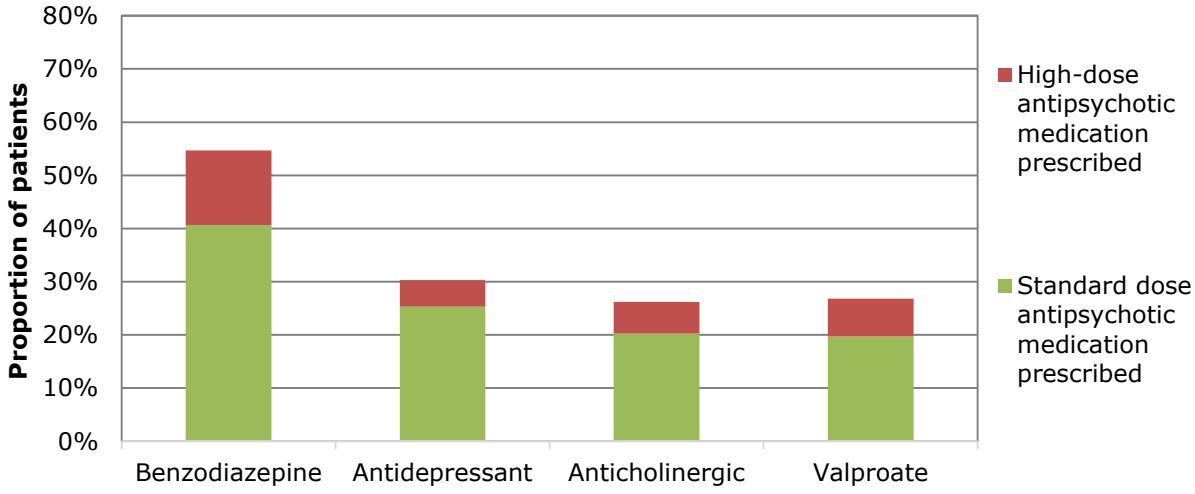
Almost a third (32%) of patients prescribed clozapine were also prescribed an anticholinergic (antiparkinsonian); this may have been to treat clozapine-induced hypersalivation rather than EPS.

A fifth (20%) of the patients in the total national sample were prescribed valproate and this was predominantly off-label prescribing. Valproate is likely to be used to treat impulsivity and aggression or as a mood stabiliser. Further, just over a quarter (26%) of patients prescribed valproate were also prescribed clozapine, suggesting use of the drug for prophylaxis against clozapine-induced seizures.

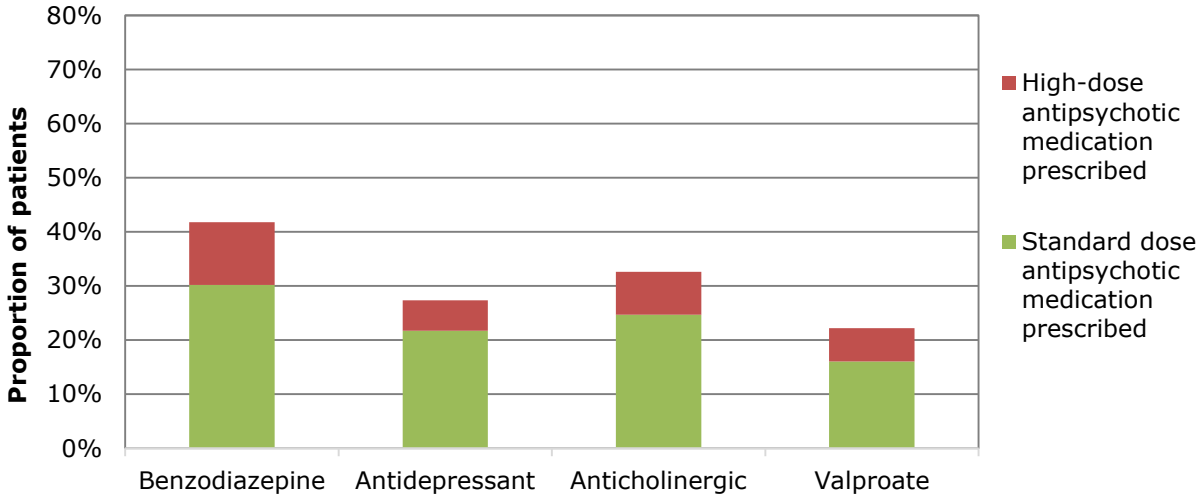
10a. **Acute adult/PICU (n=5159)**



10b. **Rehabilitation/complex needs services (n=1350)**



10c. Forensic services (n=3563)



Trust level results

Analyses presented in this section were conducted for each Trust or organisation individually and for the total sample to allow benchmarking.

Data from each Trust are presented by code.

Your Trust code is 012

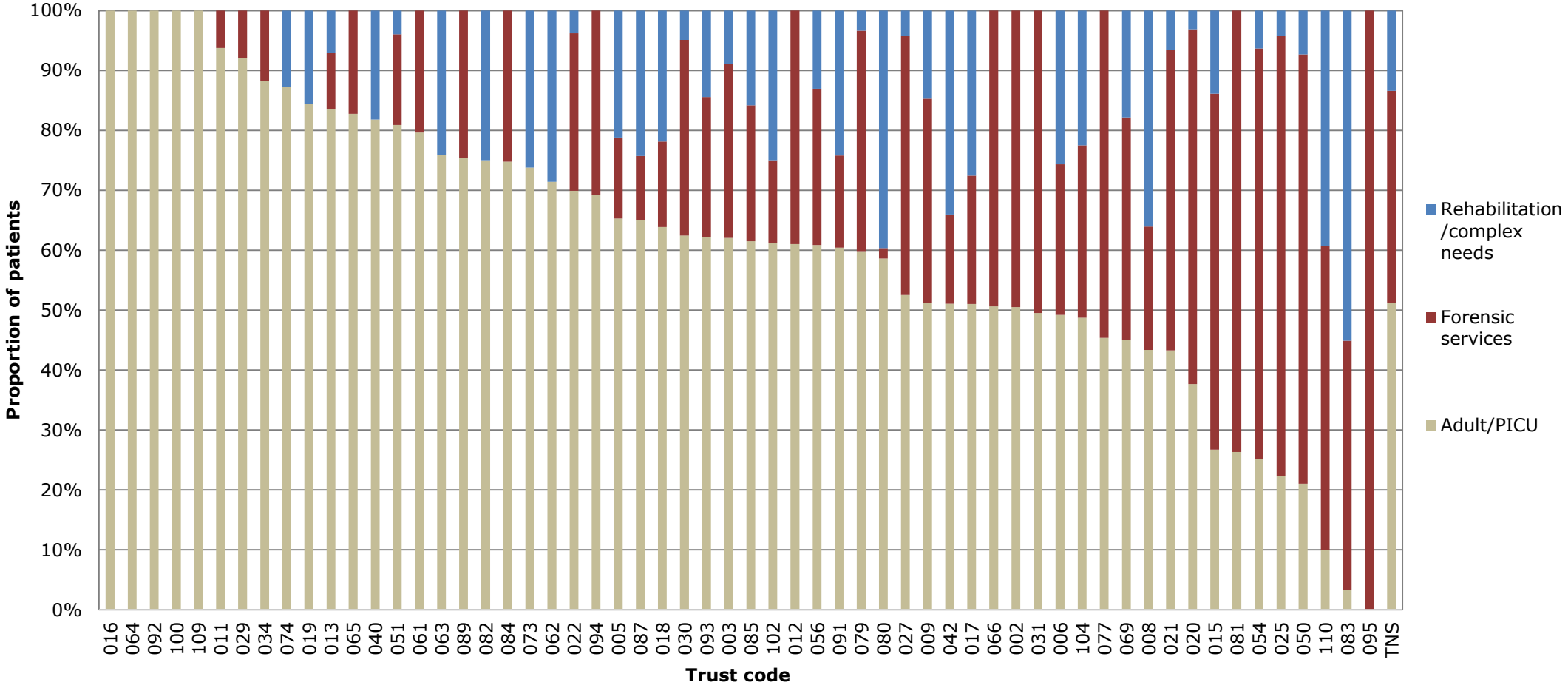
Charts in this section are ordered by frequency of key results so the position of your Trust will vary in each figure according to your practice.

Table 9. Number of wards and patient records audited from each Trust

Trust code	Patients	Clinical teams	Acute/PICU	Rehabilitation/ complex needs	Forensic
2	99	3	50 (51%)		49 (49%)
3	203	21	126 (62%)	18 (9%)	59 (29%)
5	170	11	111(65%)	36 (21%)	23 (14%)
6	191	14	94 (49%)	49 (26%)	48 (25%)
8	369	15	160 (43%)	133 (36%)	76 (21%)
9	170	14	87 (51%)	25 (15%)	58 (34%)
11	16	1	15 (94%)		1 (6%)
12	480	37	293 (61%)		187 (39%)
13	128	9	107 (84%)	9 (7%)	12 (9%)
15	101	7	27 (27%)	14 (14%)	60 (59%)
16	75	5	75 (100%)		
17	98	9	50 (51%)	27 (28%)	21 (21%)
18	119	12	76 (64%)	26 (22%)	17 (14%)
19	109	8	92 (84%)	17 (16%)	
20	353	34	133 (38%)	11 (3%)	209 (59%)
21	245	17	106 (43%)	16 (7%)	123 (50%)
22	369	28	258 (70%)	14 (4%)	97 (26%)
25	166	21	37 (22%)	7 (4%)	122 (73%)
27	257	18	135 (53%)	11 (4%)	111 (43%)
29	292	20	269 (92%)		23 (8%)
30	386	31	241 (62%)	19 (5%)	126 (33%)
31	109	20	54 (50%)		55 (50%)
34	128	7	113 (88%)		15 (12%)
40	132	10	108 (82%)	24 (18%)	
42	94	9	48 (51%)	32 (34%)	14 (15%)
50	547	47	115 (21%)	40 (7%)	392 (72%)
51	152	17	123 (81%)	6 (4%)	23 (15%)
54	394	29	99 (25%)	25 (6%)	270 (69%)
56	115	9	70 (61%)	15 (13%)	30 (26%)
61	54	6	43 (80%)		11 (20%)
62	56	5	40 (71%)	16 (29%)	
63	170	15	129 (76%)	41 (24%)	
64	184	15	184 (100%)		
65	58	1	48 (83%)		10 (17%)
66	235	5	119 (51%)		116 (49%)
69	331	36	149 (45%)	59 (18%)	123 (37%)
73	84	7	62 (74%)	22 (26%)	
74	63	6	55 (87%)	8 (13%)	
77	130	12	59 (45%)		71 (55%)
79	239	19	143 (60%)	8 (3%)	88 (37%)
80	58	9	34 (59%)	23 (40%)	1 (2%)
81	19	2	5 (26%)		14 (74%)

82	24	3	18 (75%)	6 (25%)	
83	541	5	18 (3%)	298 (55%)	225 (42%)
84	107	3	80 (75%)		27 (25%)
85	291	23	179 (62%)	46 (16%)	66 (23%)
87	140	11	91 (65%)	34 (24%)	15 (11%)
89	106	8	80 (75%)		26 (25%)
91	91	9	55 (60%)	22 (24%)	14 (15%)
92	30	4	30 (100%)		
93	90	3	56 (62%)	13 (14%)	21 (23%)
94	39	3	27 (69%)		12 (31%)
95	291	7			291 (100%)
100	14	3	14 (100%)		
102	116	5	71 (61%)	29 (25%)	16 (14%)
104	80	1	39 (49%)	18 (23%)	23 (29%)
109	25	3	25 (100%)		
110	339	49	34 (10%)	133 (39%)	172 (51%)
Total	10072	761	5159 (51%)	1350 (13%)	3563 (35%)

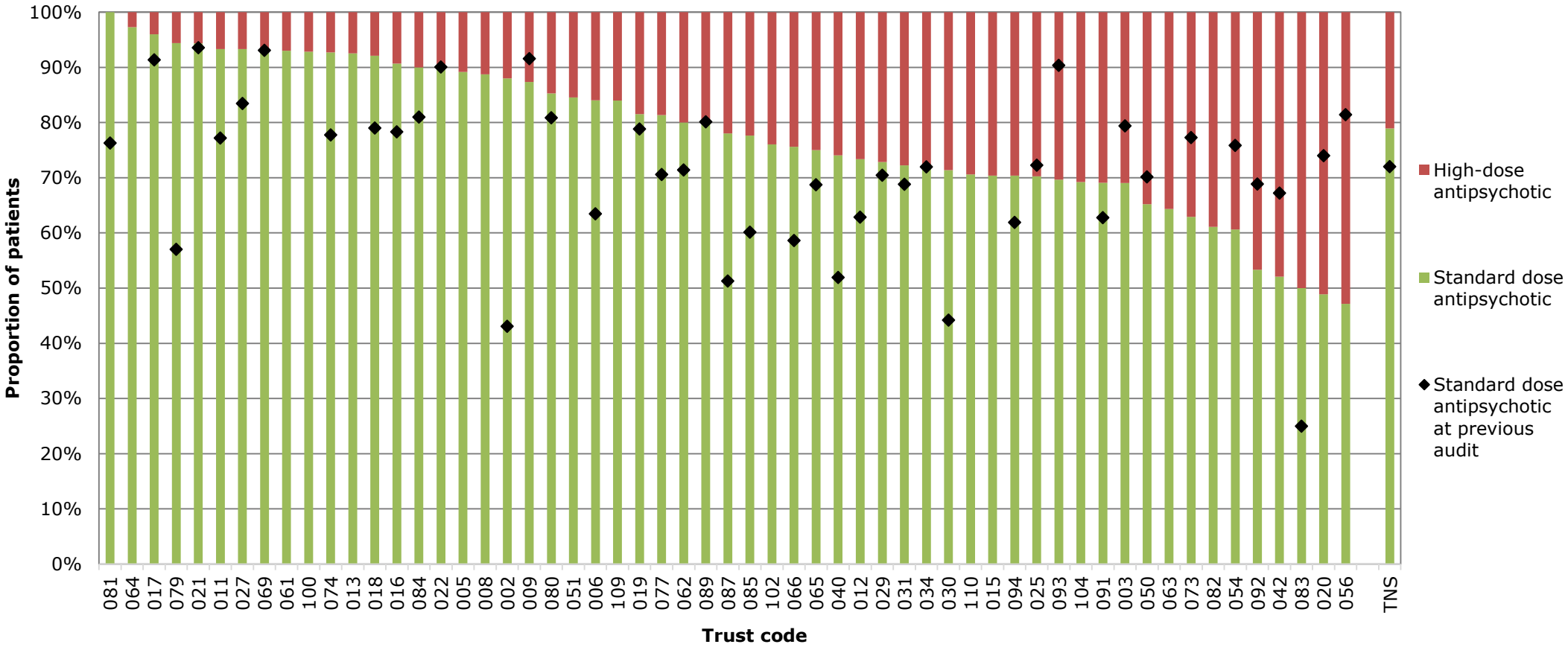
Figure 11. Proportion of patients in acute/PICU, rehabilitation/complex needs and forensic services for each Trust and the total national sample (n=10072)



Compared to the total national sample, the Trusts on the left side of the figure submitted data for higher proportions of patients in acute adult/PICU settings, and the Trusts on the right side of the figure submitted data for higher proportions of patients in forensic and for rehabilitation/complex needs settings.

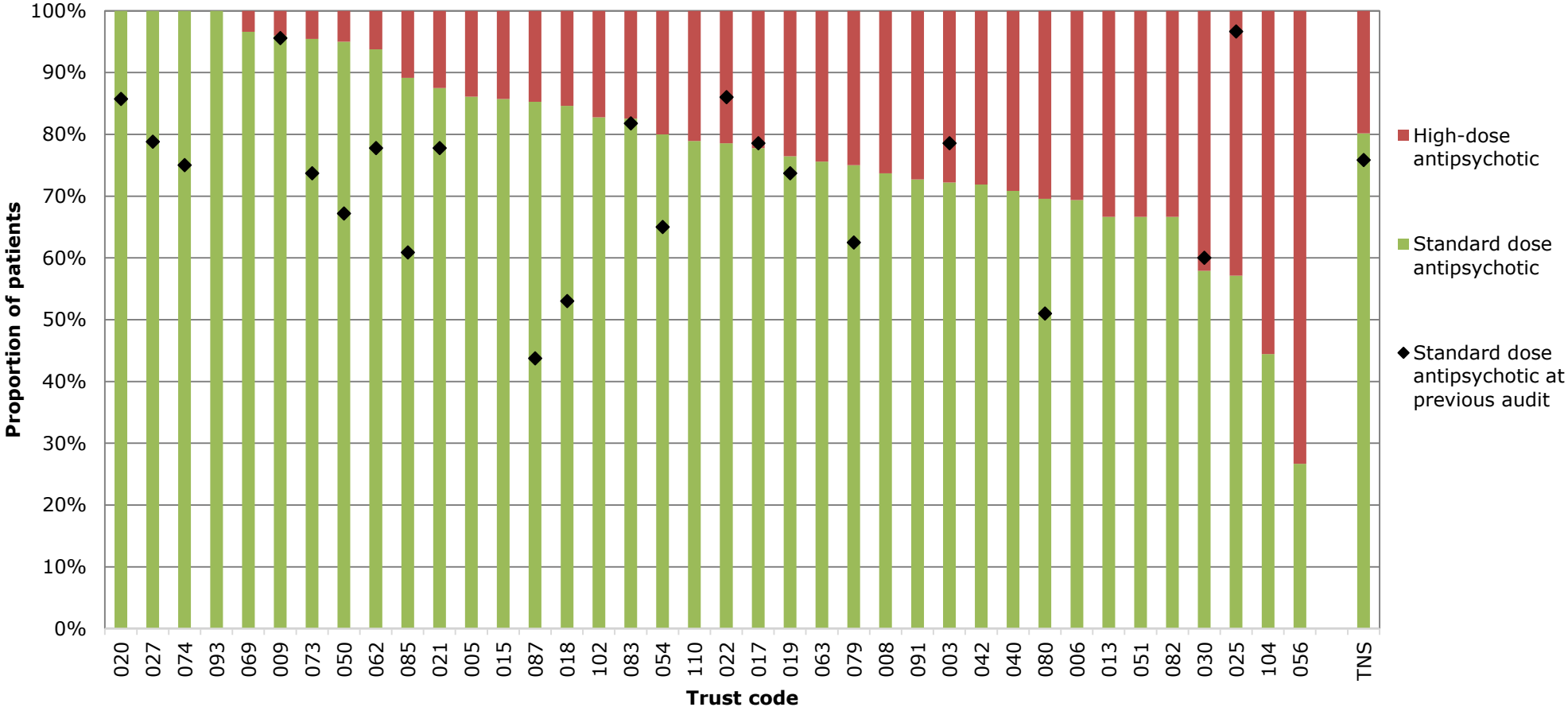
Practice standard 1
The dose of an individual antipsychotic should be within its SPC/BNF limits
A 'high-dose' is defined here as a total daily dose (whether of a single antipsychotic or combined antipsychotics) greater than 100% of the maximum recommended daily dose.

Figure 12. Proportion of patients prescribed a total antipsychotic dose within BNF limits and in a high dose in each Trust for the acute/PICU subsample (n=5159)



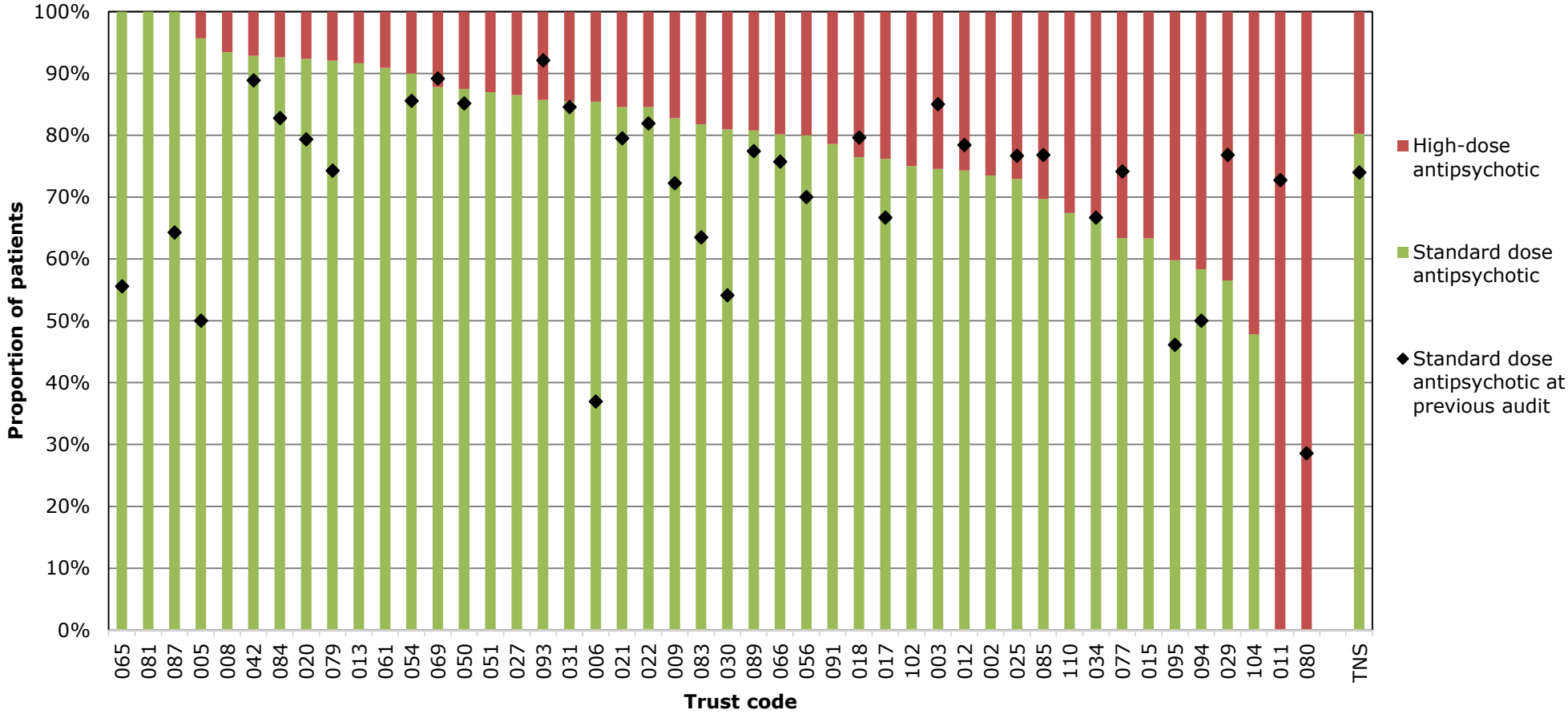
The red section of each bar represents the proportion of patients who were prescribed high-dose antipsychotics. This proportion is lowest in Trust 94 (left side of the Figure). The proportion of patients in the total national sample prescribed a high dose is shown on the far right of the Figure. This proportion has decreased modestly since the most recent previous audit in acute/PICU settings (illustrated by the black diamond).

Figure 13. Proportion of patients prescribed a total antipsychotic dose within BNF limits and in a high dose in each Trust for the rehabilitation/complex needs services subsample (n=1350)



The red section of each bar represents the proportion of patients who were prescribed high-dose antipsychotics. This proportion is lowest in Trust 20 (left side of the Figure). The proportion of patients in the total national sample prescribed a high dose is shown on the far right of the Figure, and is similar to that seen in acute/PICU settings.

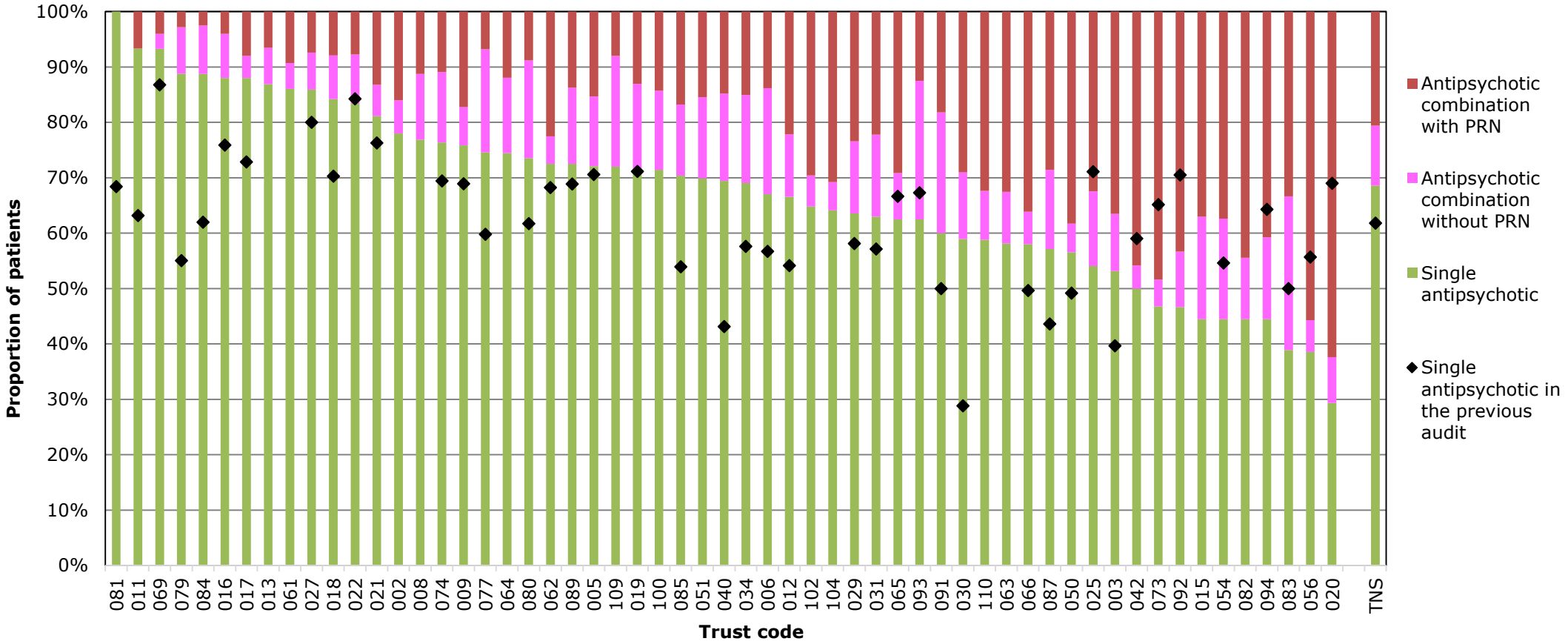
Figure 14. Proportion of patients prescribed a total antipsychotic dose within BNF limits and in a high dose in each Trust for the forensic services subsample (n=3563)



The red section of each bar represents the proportion of patients who were prescribed high-dose antipsychotics. This proportion is lowest in Trust 65 (left side of the Figure). The proportion of patients in the total national sample prescribed a high dose is shown on the far right of the Figure. This proportion has decreased modestly since the most recent previous audit in forensic settings (illustrated by the black diamond).

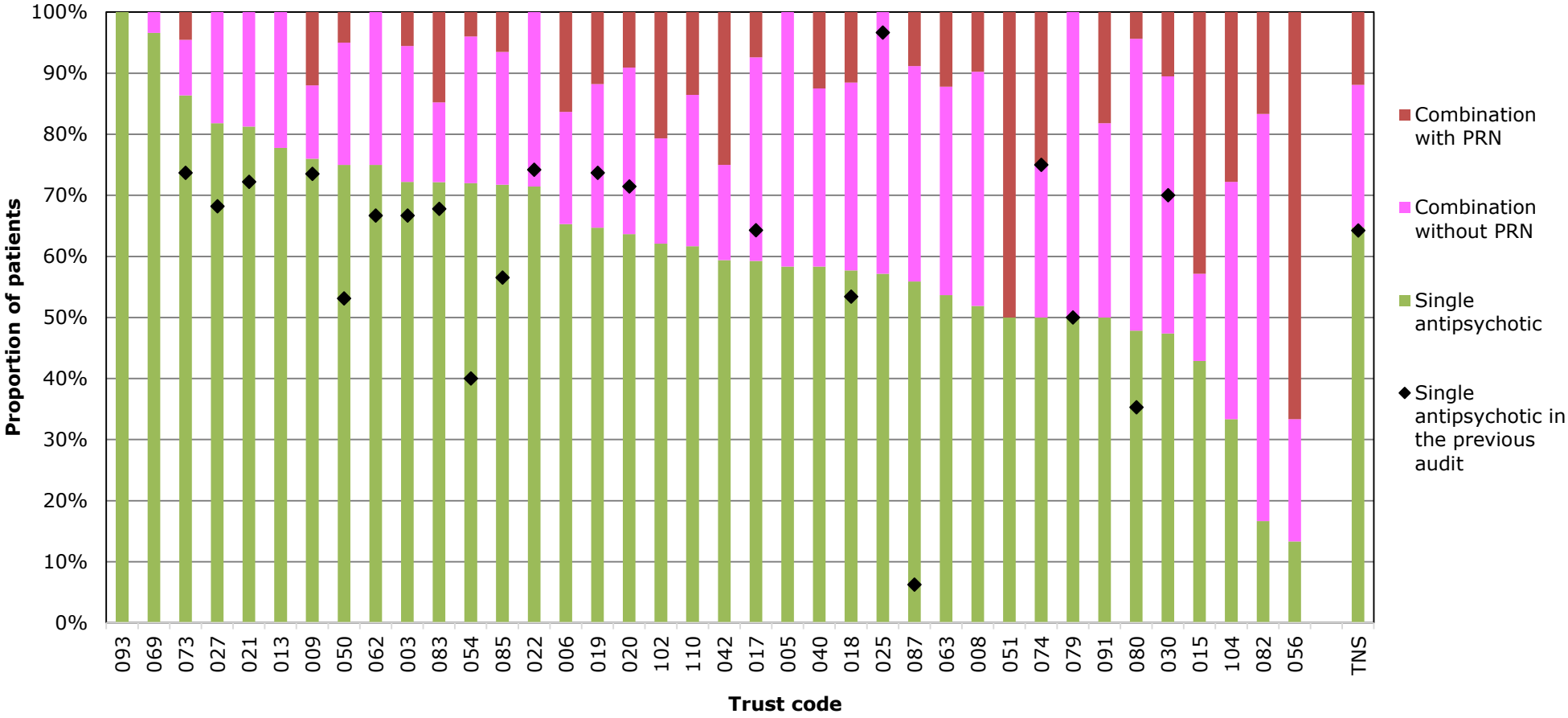
Practice standard 2
Individuals receive only one antipsychotic at a time.
This standard applies to 100% of individuals with schizophrenia. Exceptions: 'Individuals with schizophrenia who are receiving clozapine but who have not responded sufficiently; and individuals who are changing from one antipsychotic to another'.

Figure 15. Proportion of patients where a combination of antipsychotic drugs (with and without PRN) is prescribed in the acute/PICU subsample (n=5159)



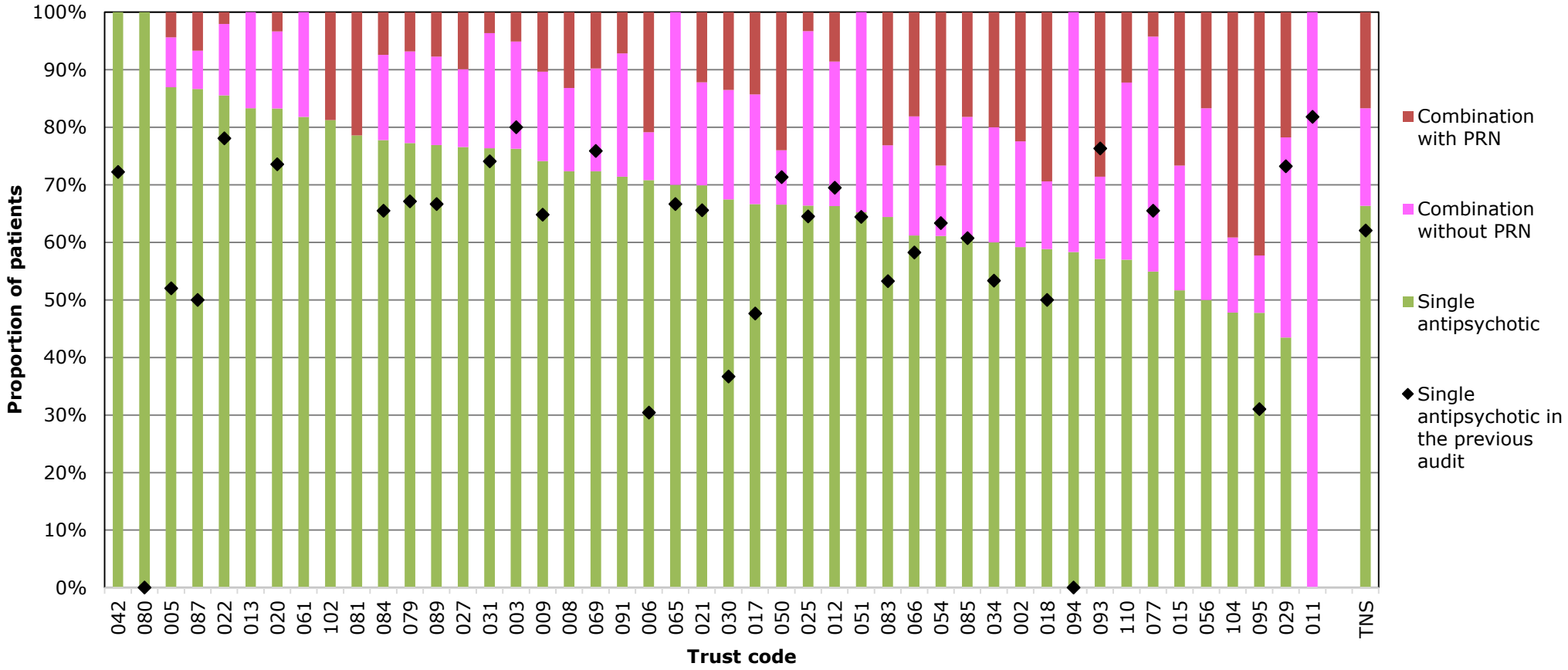
The red/pink sections of each bar represent the proportions of patients in each Trust who were prescribed combined antipsychotics with and without PRN drugs. The proportion of patients in the total national sample prescribed combined antipsychotics is shown on the far right of the Figure. The majority of combinations include antipsychotics prescribed on a PRN basis. Prescribing of regular combined antipsychotics (PRN is not shown) is shown in Figure 21.

Figure 16. Proportion of patients where a combination of antipsychotic drugs (with and without PRN) is prescribed in the rehabilitation/complex needs subsample (n=1350)



The red/pink sections of each bar represent the proportions of patients in each Trust who were prescribed combined antipsychotics with and without PRN drugs. The proportion of patients in the total national sample prescribed combined antipsychotics is shown on the far right of the Figure. In comparison with the other clinical services included in this audit, relatively fewer combinations in rehabilitation/complex needs settings included antipsychotics prescribed on a PRN basis. Prescribing of regular combined antipsychotics (PRN is not shown) is shown in Figure 22.

Figure 17. Proportion of patients where a combination of antipsychotic drugs (with and without PRN) is prescribed in the forensic services subsample (n=3563)



The red/pink sections of each bar represent the proportions of patients in each Trust who were prescribed combined antipsychotics with and without PRN drugs. The proportion of patients in the total national sample prescribed combined antipsychotics is shown on the far right of the Figure. The majority of combinations include antipsychotics to be prescribed on a PRN basis. Prescribing of regular combined antipsychotics (PRN is not shown) is shown in Figure 23.

Figure 18. Proportion of patients prescribed regular high-dose antipsychotic medication (that is, PRN medication is not included in the high dose calculation) in the acute/PICU subsample (n=5074)

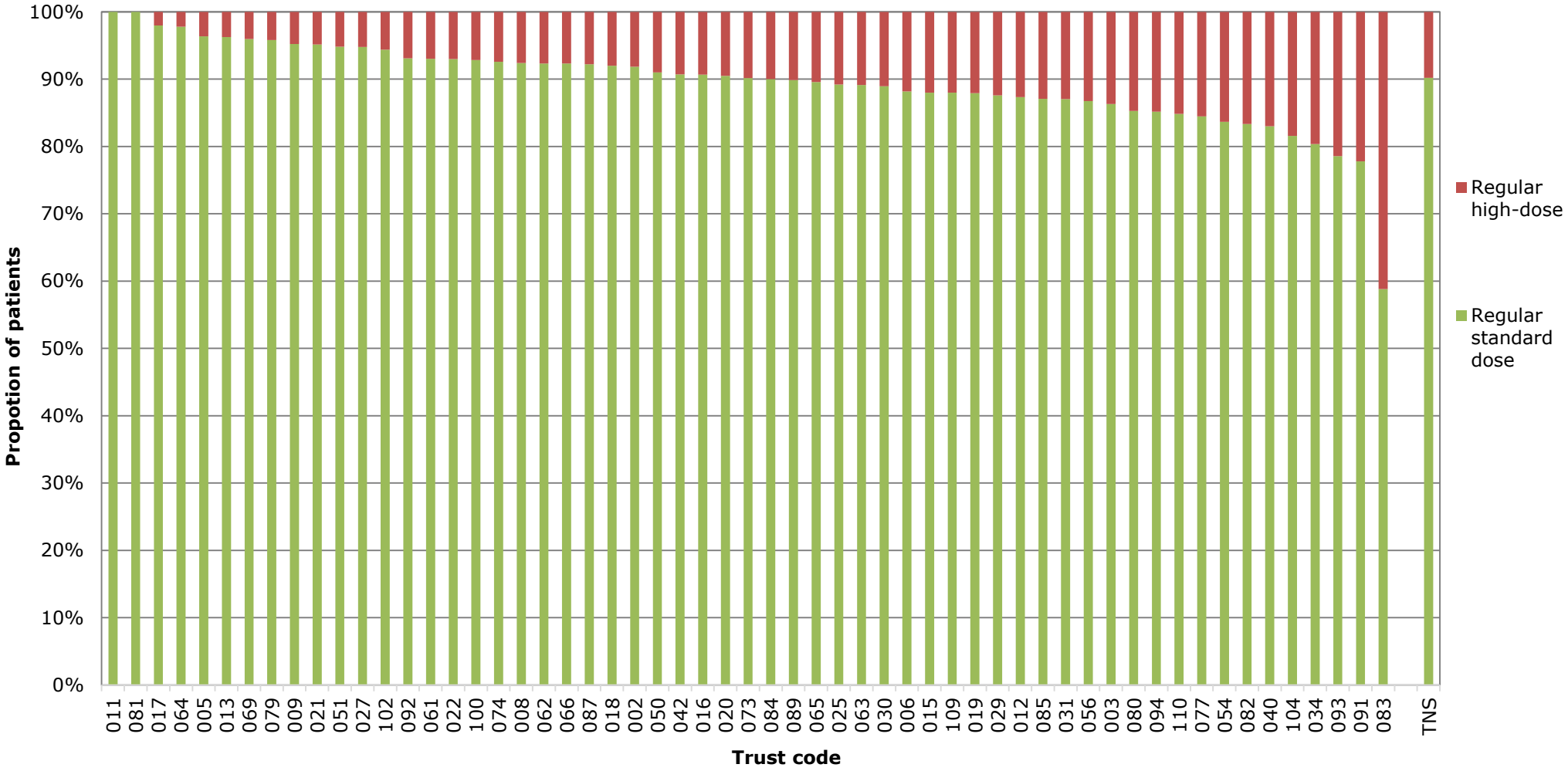


Figure 19. Proportion of patients prescribed regular high-dose antipsychotic medication (that is, PRN medication is not included in the high dose calculation) in the rehabilitation/complex needs subsample (n=1336)

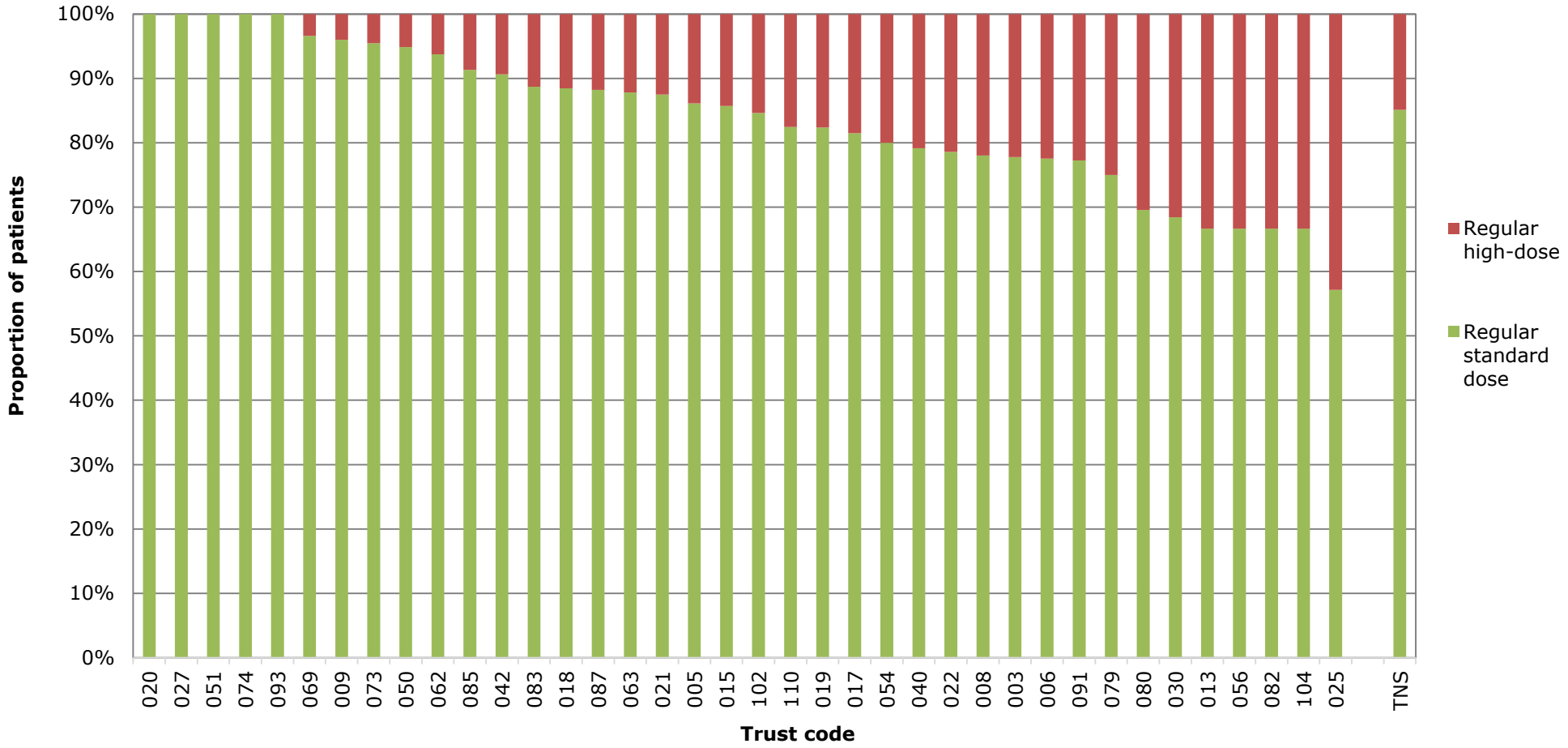


Figure 20. Proportion of patients prescribed regular high-dose antipsychotic medication (that is, PRN medication is not included in the high dose calculation) in the forensic subsample (n=3520)

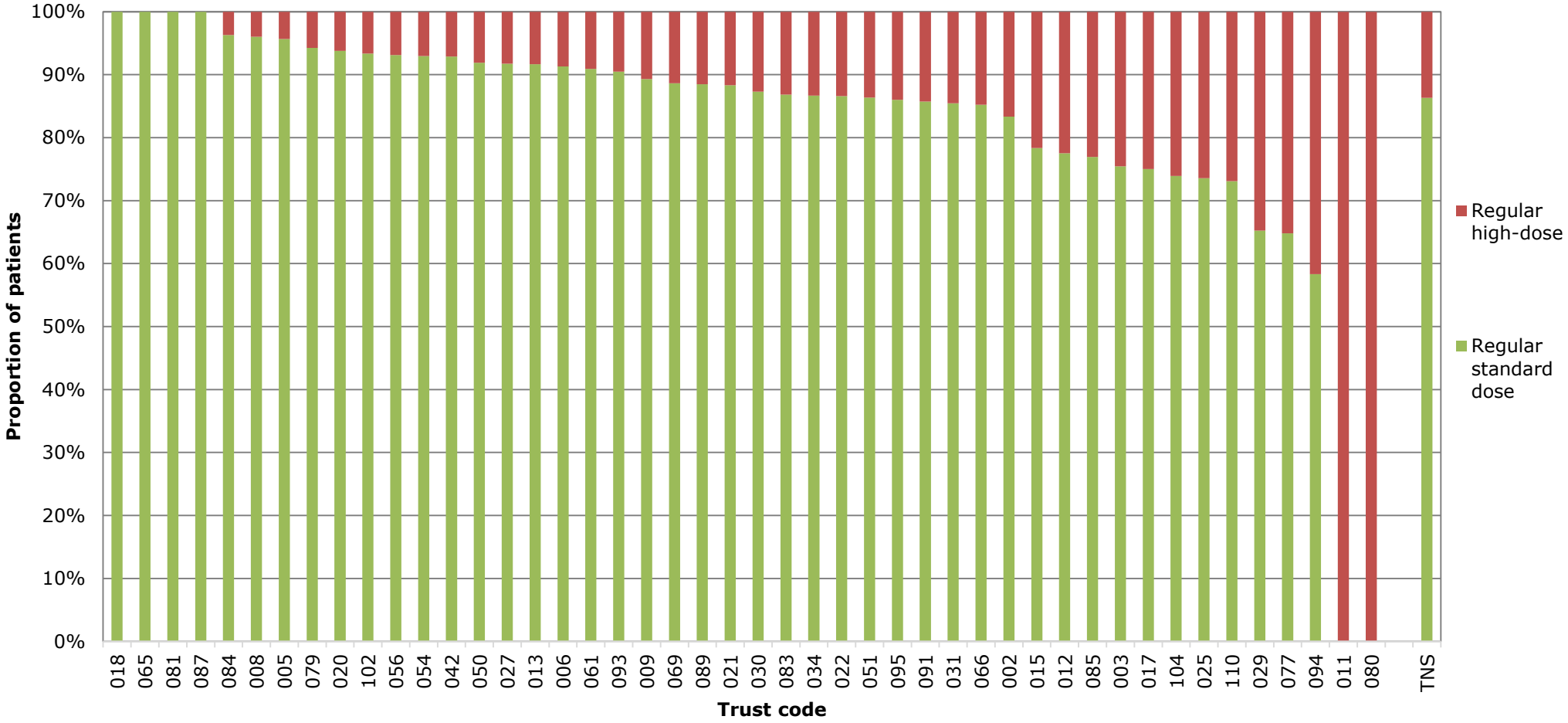
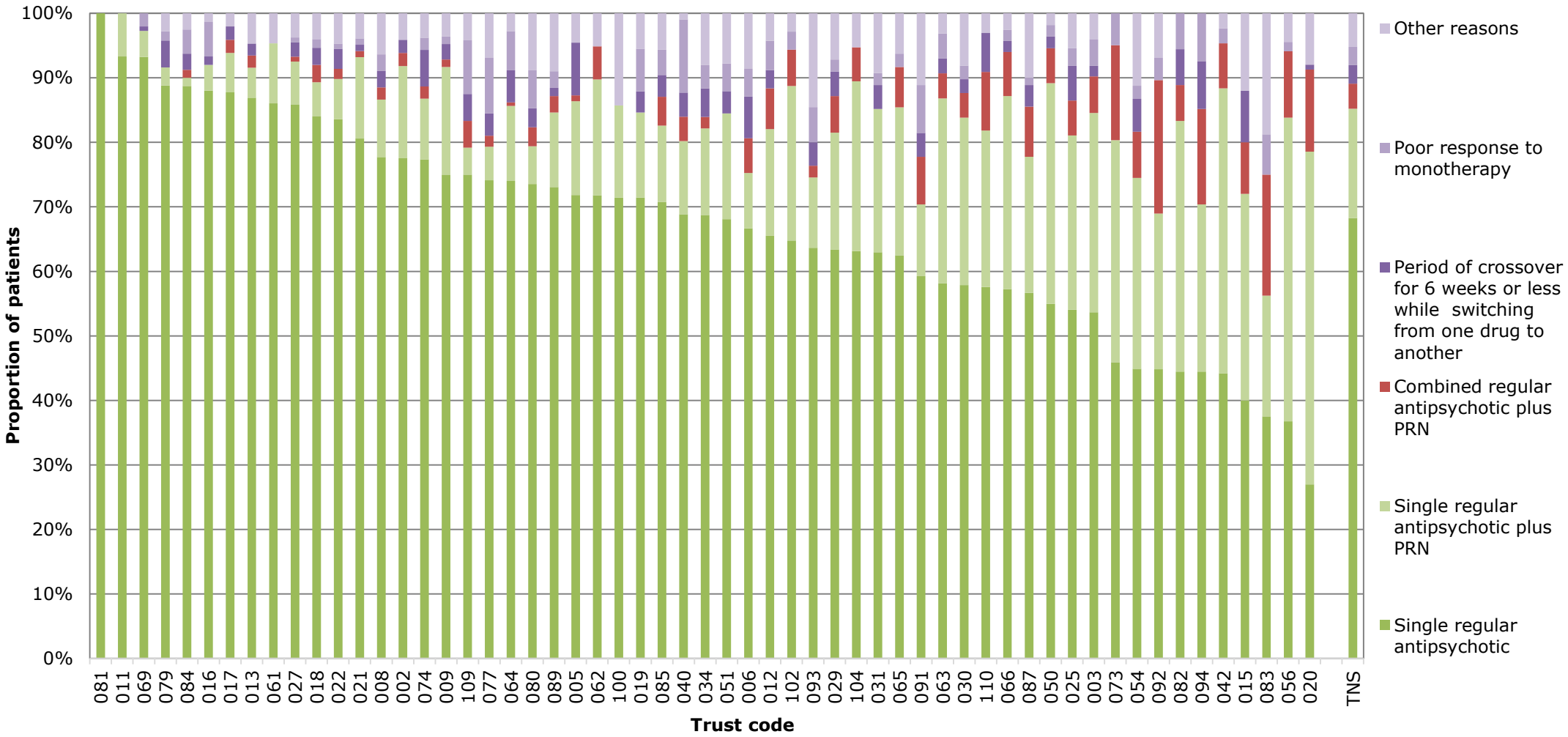


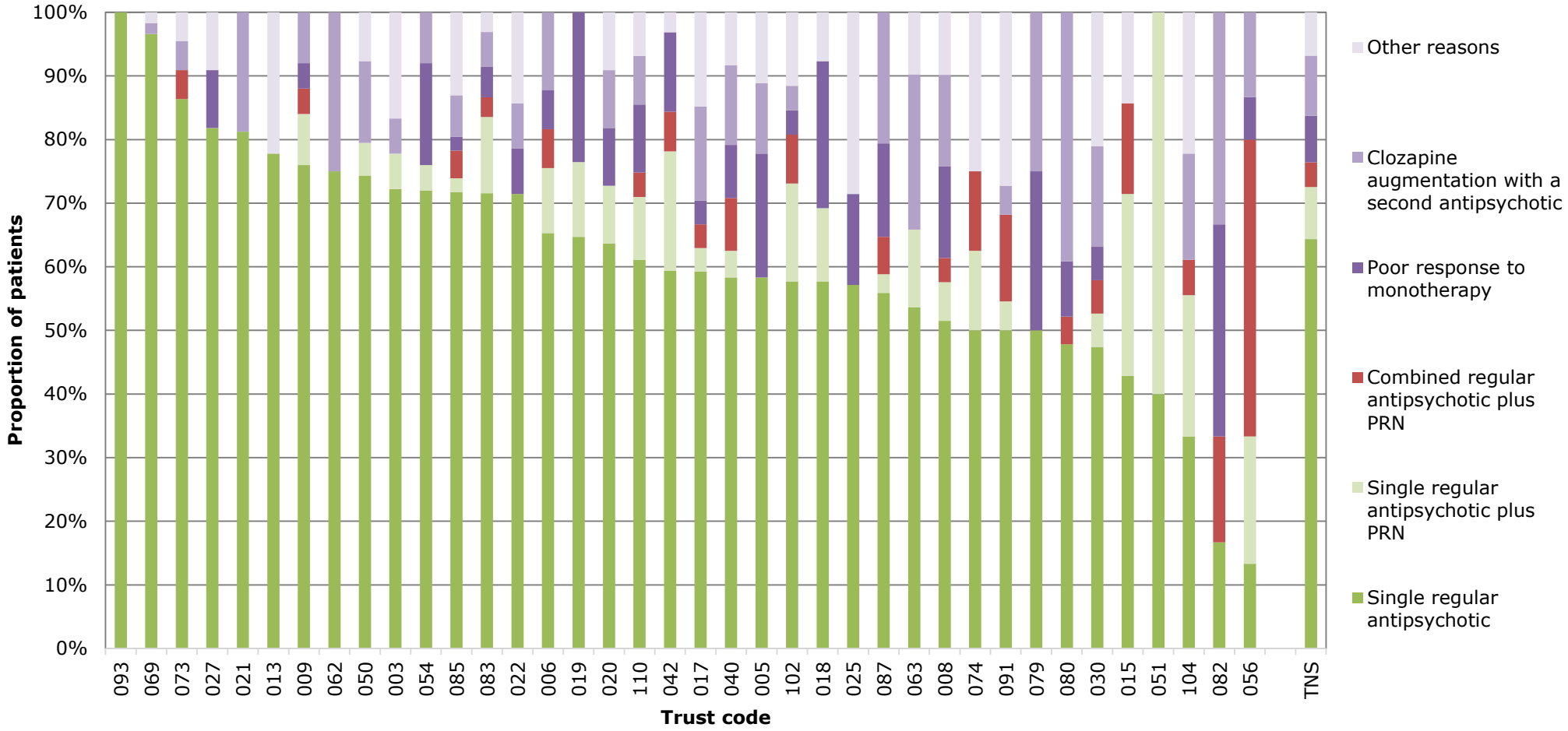
Figure 21. Reasons for prescribing more than one regular antipsychotic in the acute/PICU subsample (n=5065)*



*85 patients prescribed PRN only, 9 cases with missing data

This Figure shows the overall proportion of prescriptions in acute/PICU settings in each Trust that included combined antipsychotics, and the proportions of these combinations for which the reasons for prescribing were a short period of switching from one antipsychotic to another or poor response to monotherapy (both rationales are supported by NICE). Overall a relatively small proportion of prescriptions for combined antipsychotics were for one of these indications.

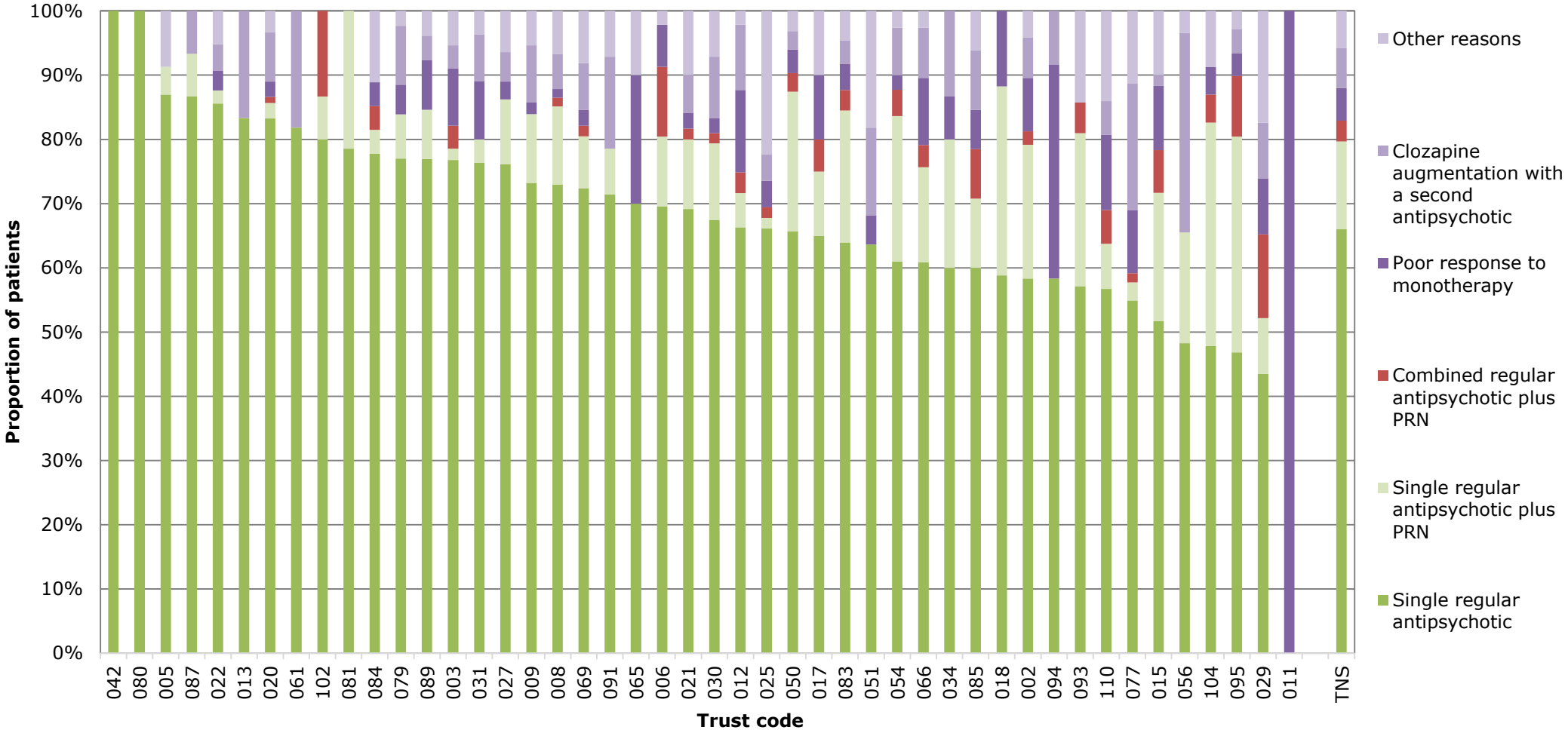
Figure 22. Reasons for prescribing more than one regular antipsychotic in the rehabilitation/complex needs subsample (n=1336)*



*14 patients prescribed PRN only

This Figure shows the overall proportion of prescriptions in rehabilitation/complex needs settings in each Trust that included combined antipsychotics, and the proportions of these combinations for which the reasons for prescribing were a poor response to monotherapy or the augmentation of clozapine (both rationales are supported by NICE). Overall a relatively small proportion of prescriptions for combined antipsychotics were for one of these indications, although this varied widely across Trusts.

Figure 23. Reasons for prescribing more than one regular antipsychotic in the forensic services subsample (n=3517)*



*43 patients prescribed PRN only, 3 cases with missing data

This Figure shows the overall proportion of prescriptions in forensic settings in each Trust that included combined antipsychotics, and the proportions of these combinations for which the reasons for prescribing were poor response to monotherapy or the augmentation of clozapine (both rationales are supported by NICE). Overall a relatively small proportion of prescriptions for combined antipsychotics were for one of these indications, although this varied widely across Trusts.

Figure 24. Proportion of patients prescribed regular high-dose antipsychotic medication in the acute/PICU subsample where there was a statement in the care plan that high-dose antipsychotic medication was prescribed (n=497)

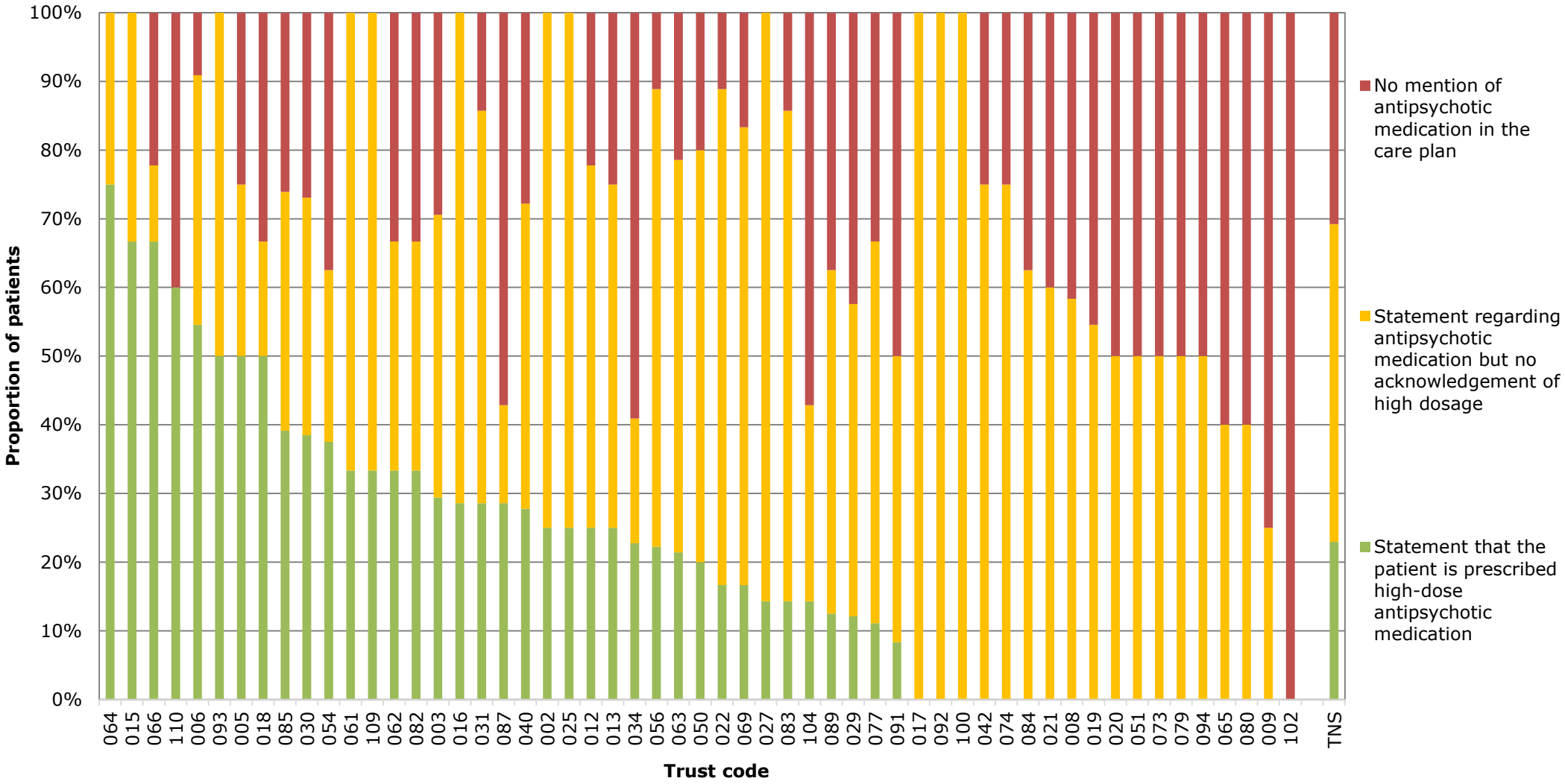


Figure 25. Proportion of patients prescribed regular high-dose antipsychotic medication in the rehabilitation/complex needs subsample where there was a statement in the care plan that high-dose antipsychotic medication was prescribed (n=199)

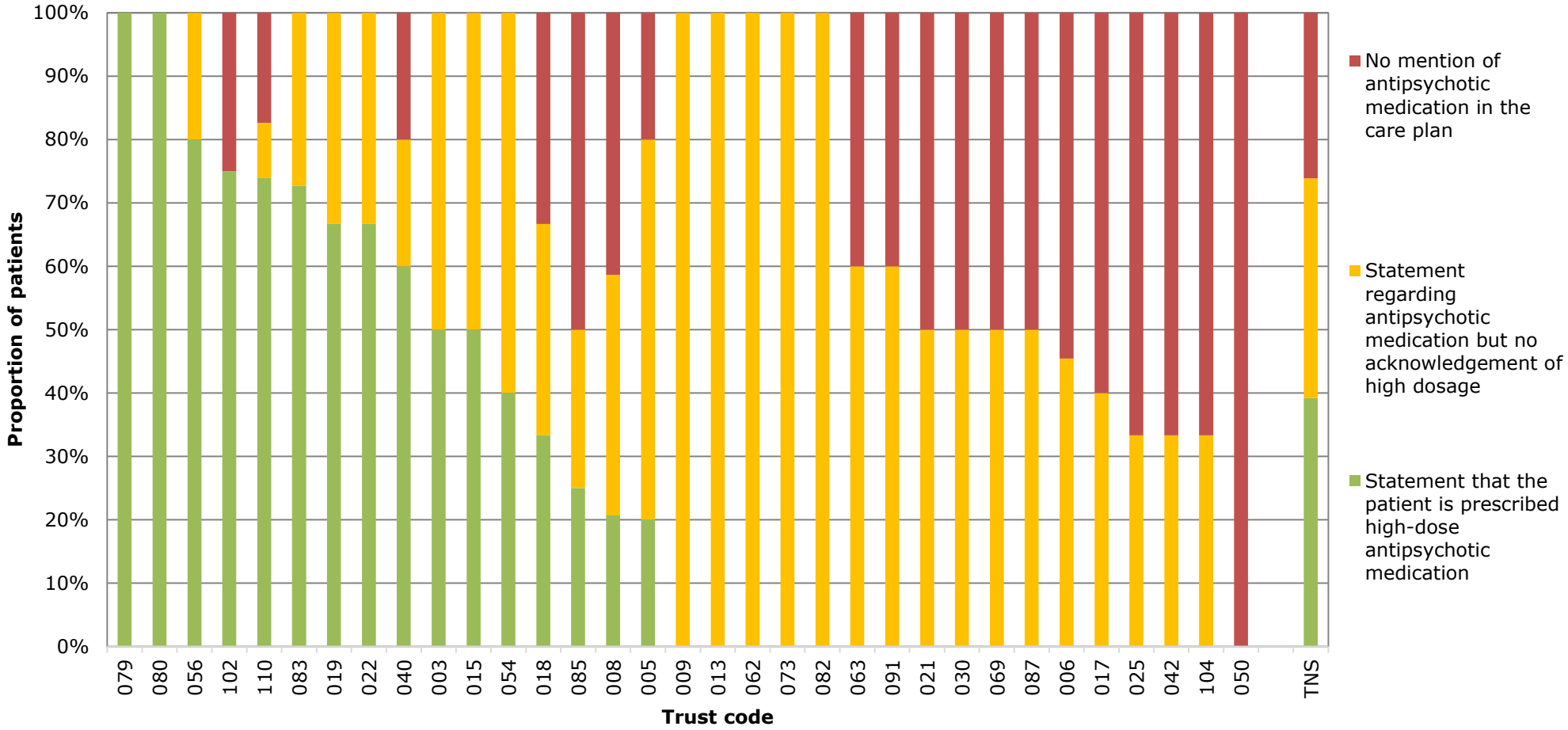
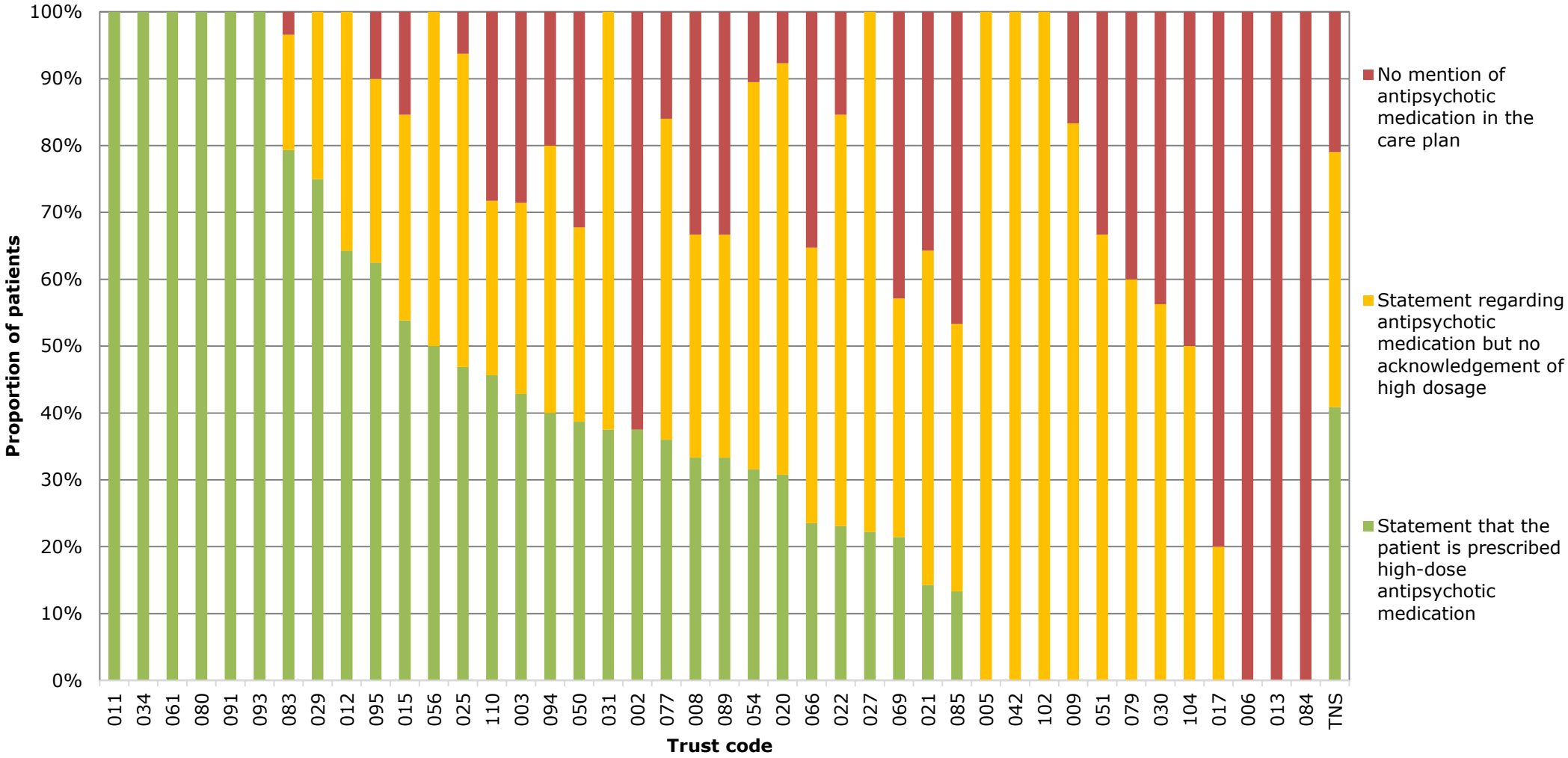


Figure 26. Proportion of patients prescribed regular high-dose antipsychotic medication in the forensic subsample where there was a statement in the care plan that high-dose antipsychotic medication was prescribed (n=482)



Practice standard 3
Where high-dose antipsychotics are prescribed, there should be a clear plan for regular clinical review including safety monitoring.

Figure 27. Proportion of patients prescribed regular high-dose antipsychotic medication (that is, PRN was not included in the high dose calculation) (n=1178) in the total national sample (acute adult/PICU plus forensic plus rehabilitation/complex needs settings) who had their blood pressure checked in the past year

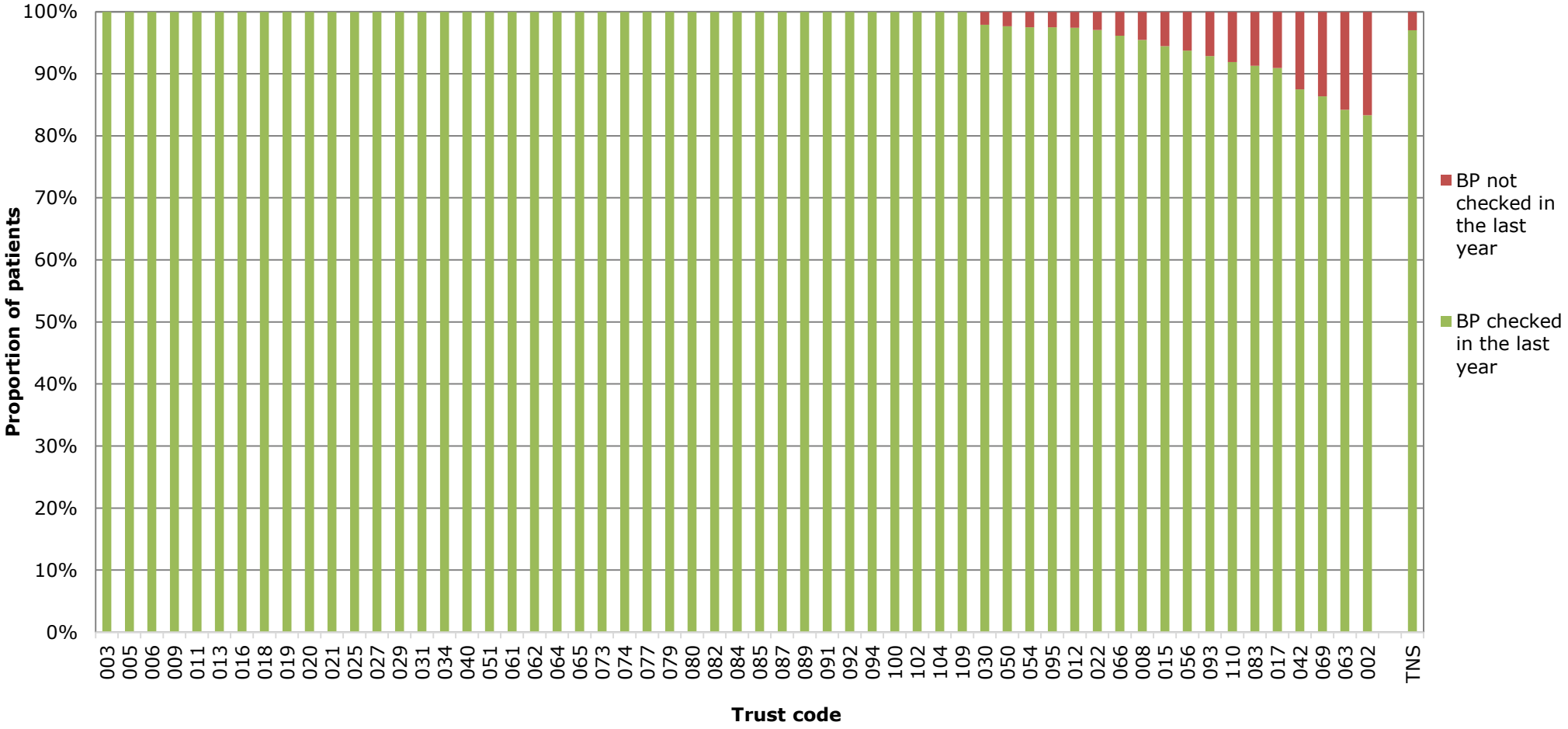


Figure 28. Proportion of patients prescribed regular high-dose antipsychotic medication (that is, PRN was not included in the high dose calculation) (n=1178) in the total national sample (acute adult/PICU plus forensic plus rehabilitation/complex needs settings) who had their pulse checked in the past year

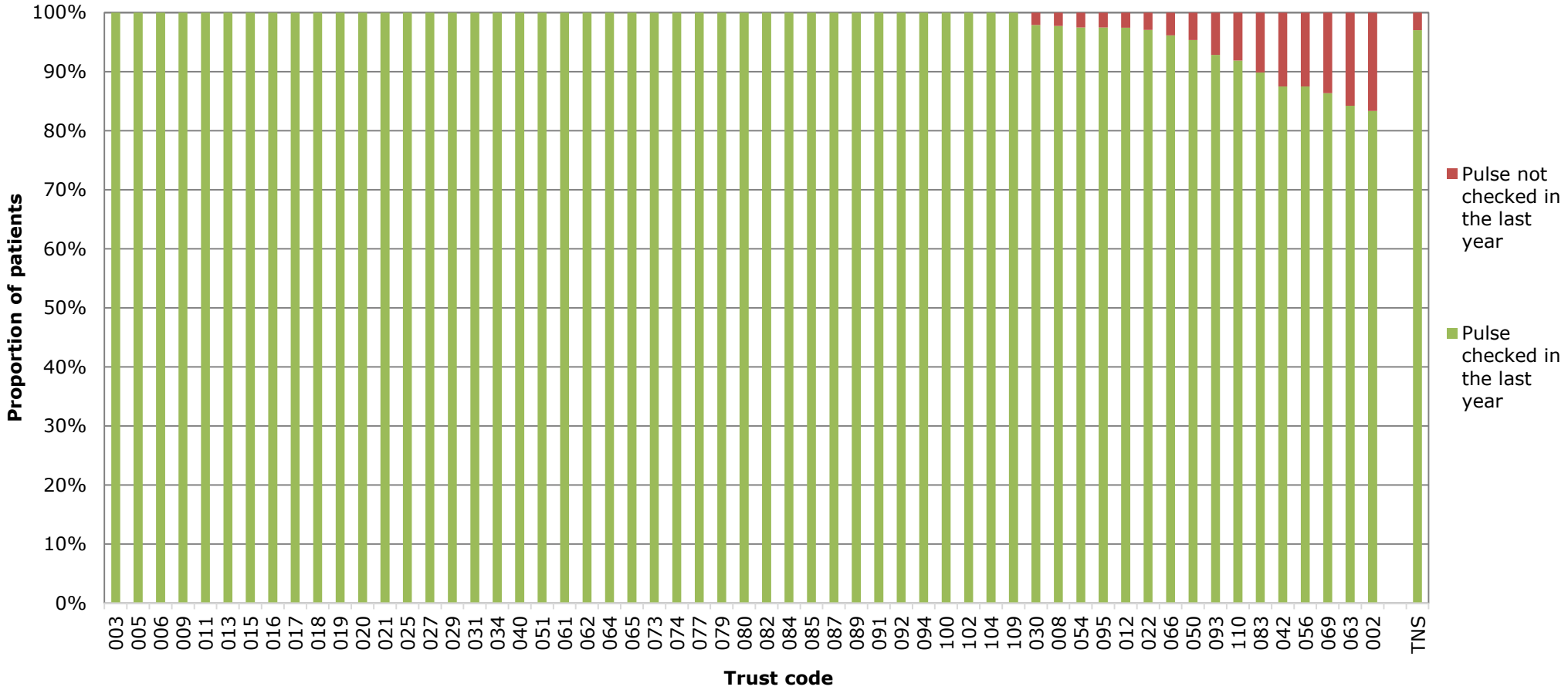


Figure 29. Proportion of patients prescribed regular high-dose antipsychotic medication (that is, PRN was not included in the high dose calculation) (n=1178) in the total national sample (acute adult/PICU plus forensic plus rehabilitation/complex needs settings) who had their weight/BMI measured in the past year

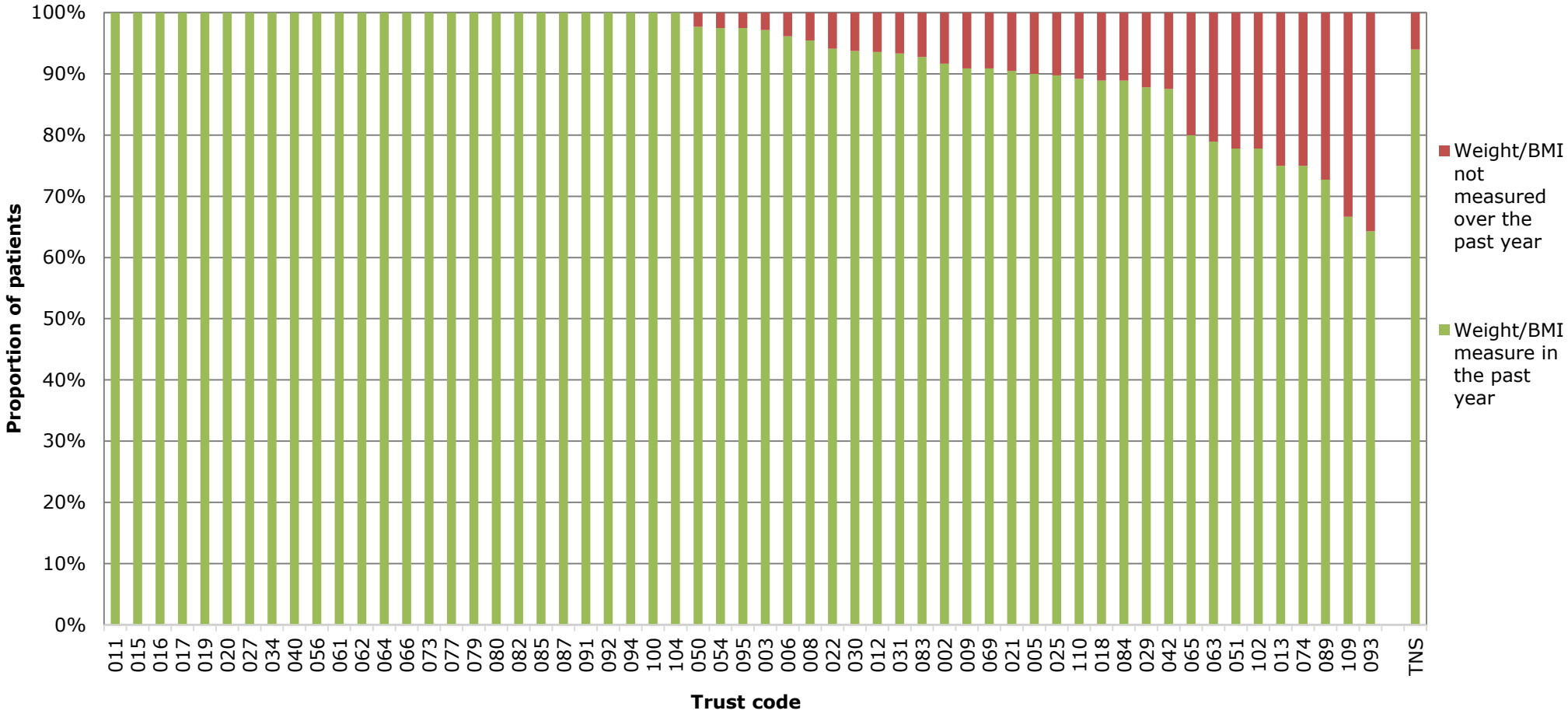


Figure 30. Proportion of patients prescribed regular high-dose antipsychotic medication (that is, PRN was not included in the high dose calculation) (n=1178) in the total national sample (acute adult/PICU plus forensic plus rehabilitation/complex needs settings) who had their plasma lipids checked in the past year

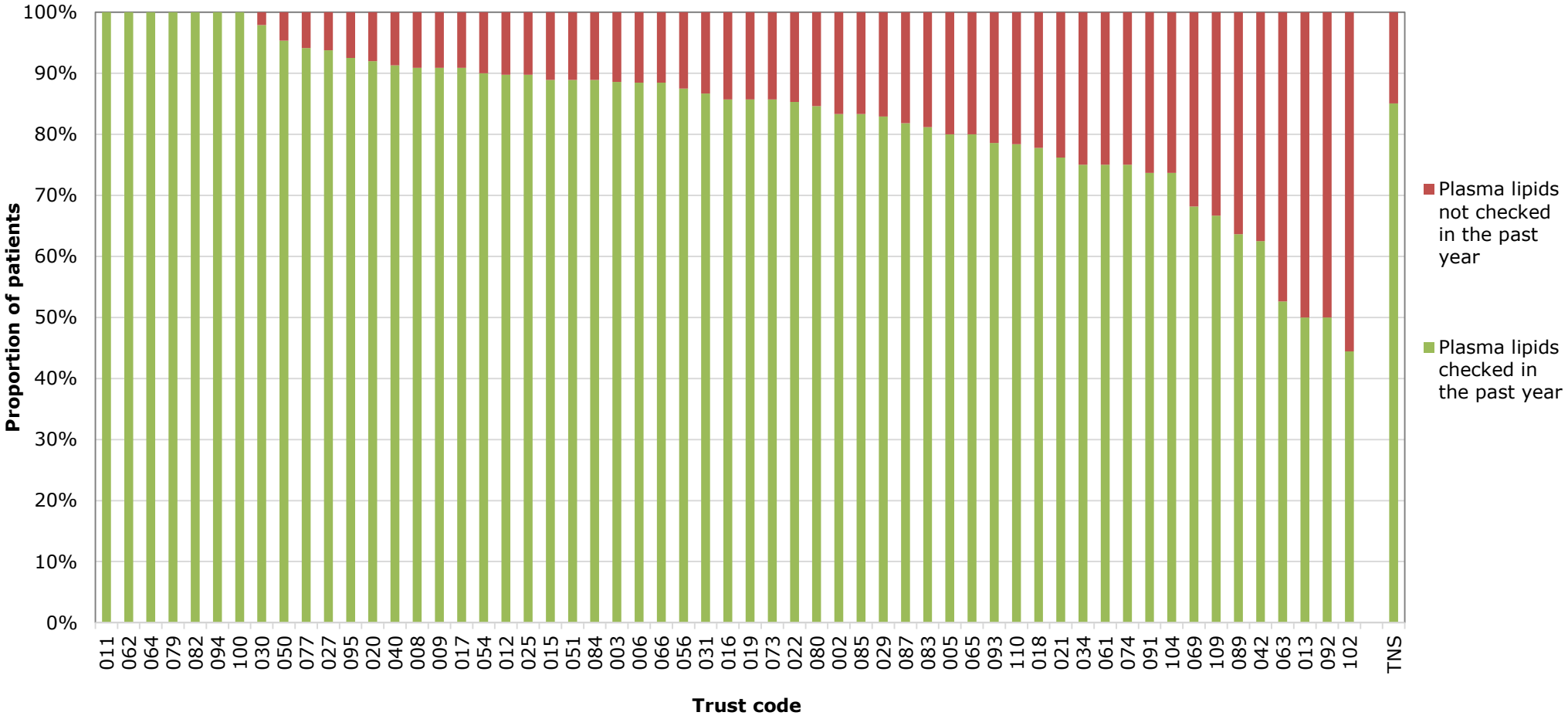


Figure 31. Proportion of patients prescribed regular high-dose antipsychotic medication (that is, PRN was not included in the high dose calculation) (n=1178) in the total national sample (acute adult/PICU plus forensic plus rehabilitation/complex needs settings) who had their plasma glucose checked in the past year

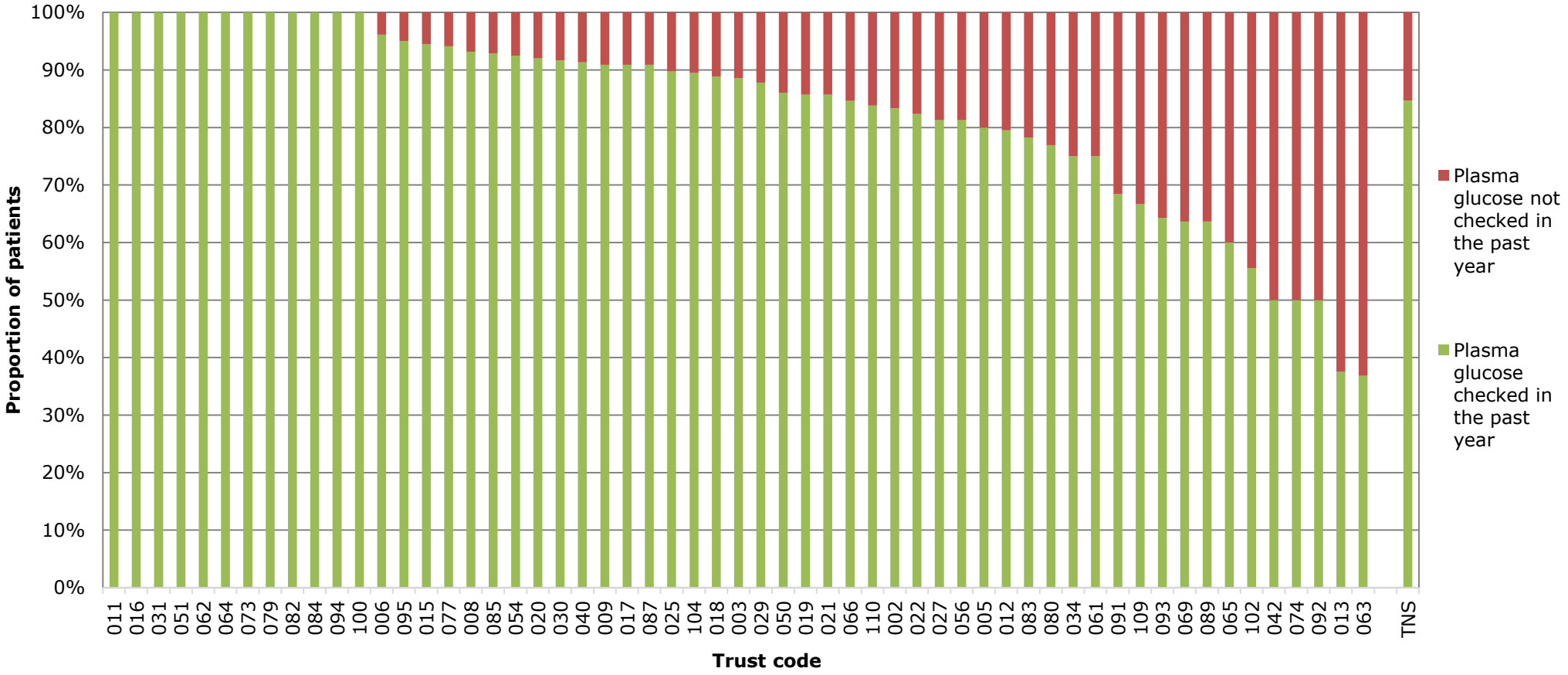
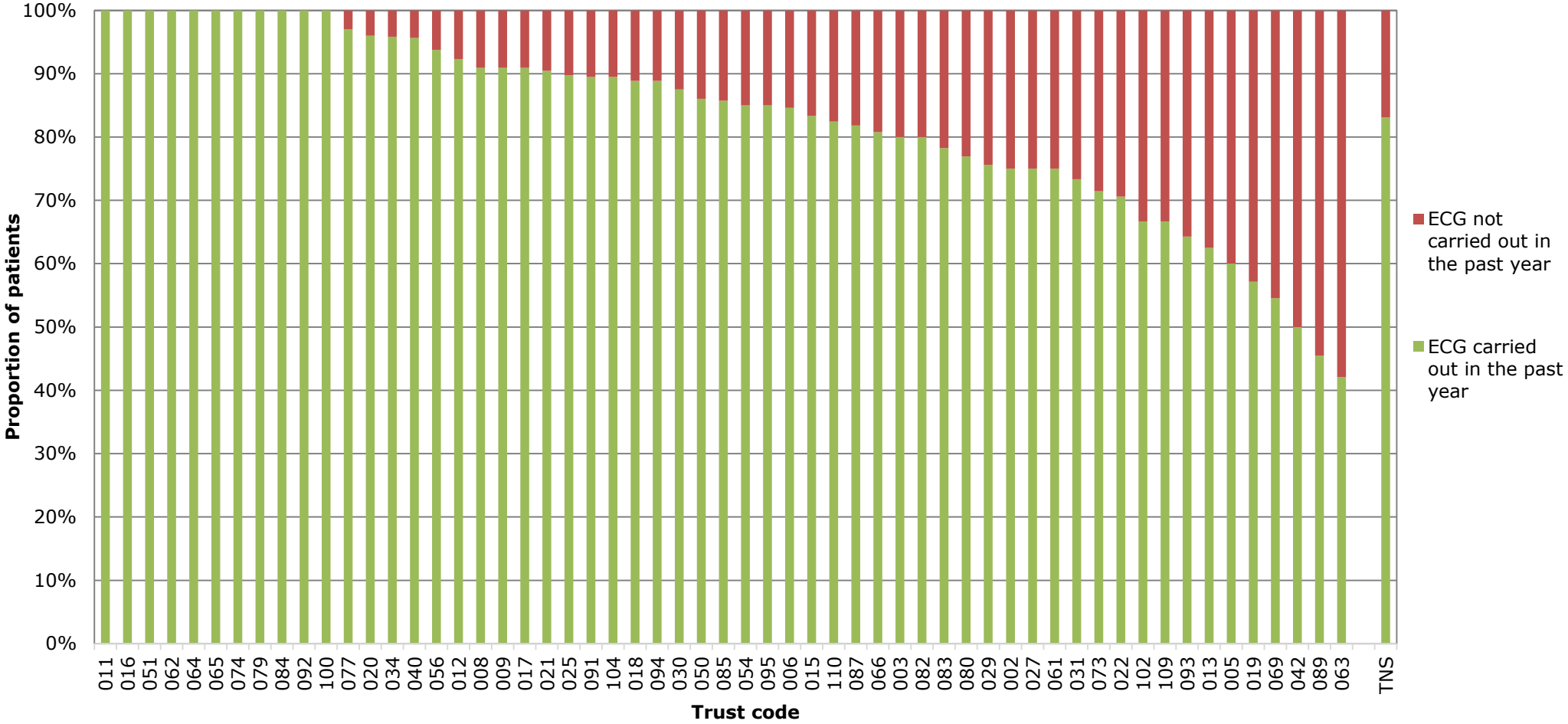


Figure 32. Proportion of patients prescribed regular high-dose antipsychotic medication (that is, PRN was not included in the high dose calculation) (n=1178) in the total national sample (acute adult/PICU plus forensic plus rehabilitation/complex needs settings) who had an assessment for movement disorder (extrapyramidal side effects) carried out in the past year

Figure 33. Proportion of patients prescribed regular high-dose antipsychotic medication (that is, PRN was not included in the high dose calculation) (n=1178) in the total national sample (acute adult/PICU plus forensic plus rehabilitation/complex needs settings) who had an ECG carried out in the past year



Team level results

Analyses presented in this section were conducted for each team from your Trust or organisation individually, for your total Trust or organisation sample and for the national service subsamples to allow benchmarking.

Data from each Trust clinical team are presented by code only.

The POMH-UK Central Project Team does not know the identity of individual clinical teams.

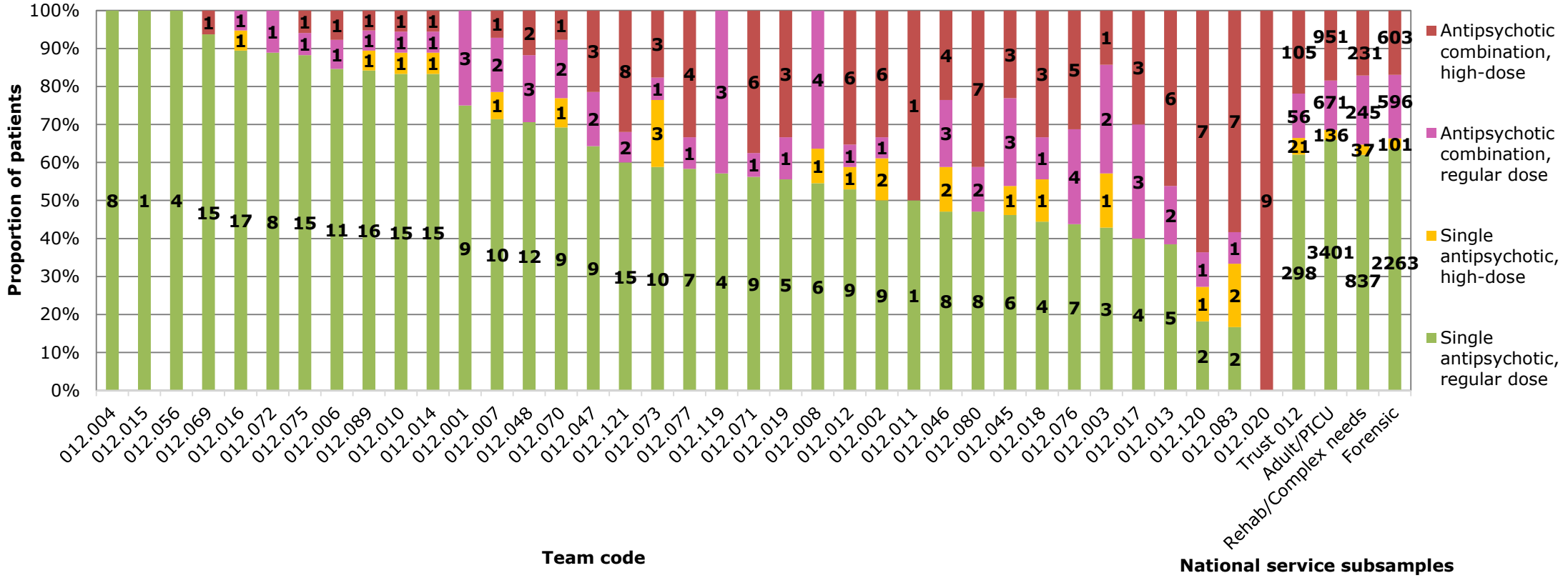
Only the Local POMH lead for your Trust or organisation has the key to clinical team codes. You should contact this person if you need to identify data for your own particular clinical team.

Charts in this section are ordered by performance against the clinical practice standards, and so the position of teams in each figure will vary.

Practice standard 1
The dose of an individual antipsychotic should be within its SPC/BNF limits
A 'high-dose' is defined here as a total daily dose (whether of a single antipsychotic or combined antipsychotics) greater than 100% of the maximum recommended daily dose

Practice standard 2
Individuals receive only one antipsychotic at a time.
This standard applies to 100% of individuals with schizophrenia. Exceptions: 'Individuals with schizophrenia who are receiving clozapine but who have not responded sufficiently; and individuals who are changing from one antipsychotic to another'.

Figure 34. Proportion of patients from each clinical team, your Trust (n=480) and the national service subsamples prescribed single or combination antipsychotics within BNF limits or at a high dose



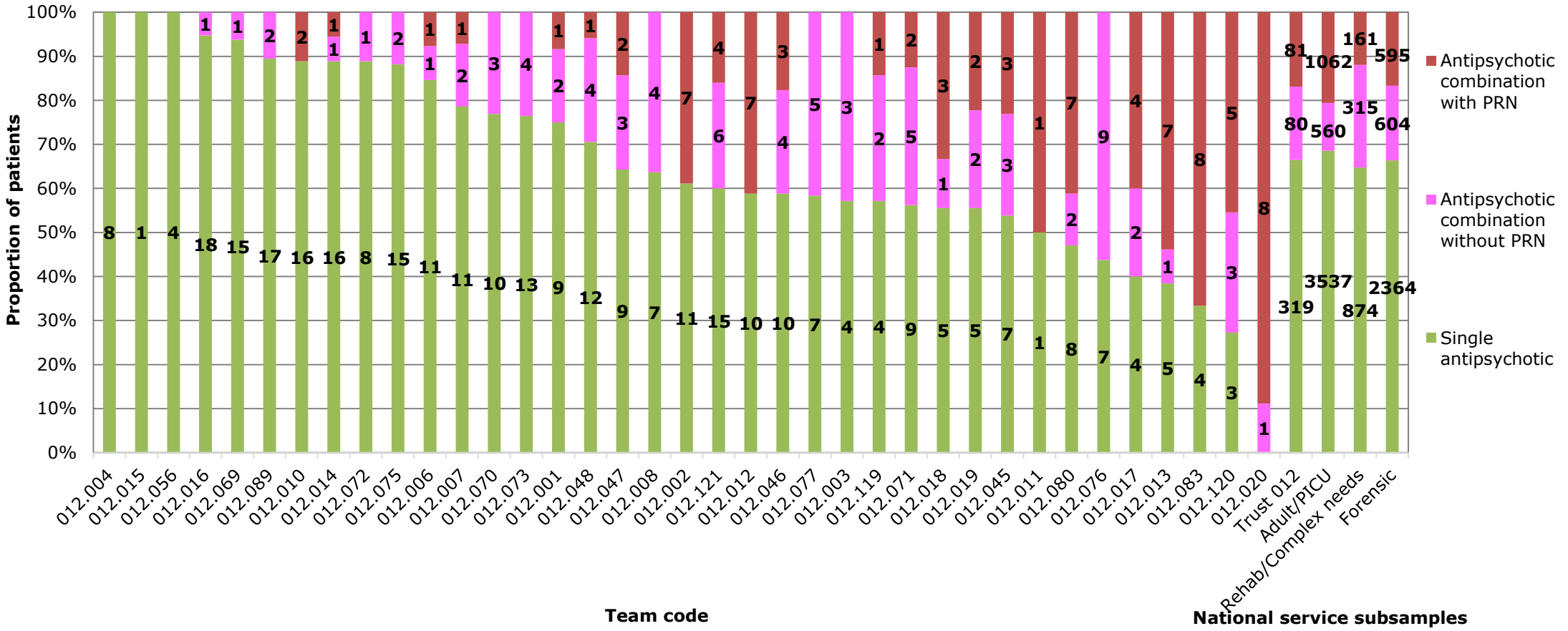
Team code

National service subsamples

For your Trust, prescribing practice in the team at the left side of the Figure is closest to the audit standards. Practice in the team at the right of the Figure is furthest from the standards. Practice in your Trust as a whole and in the total national subsamples can be seen at the far right of the Figure. The numbers on the histogram represent actual numbers of patients.

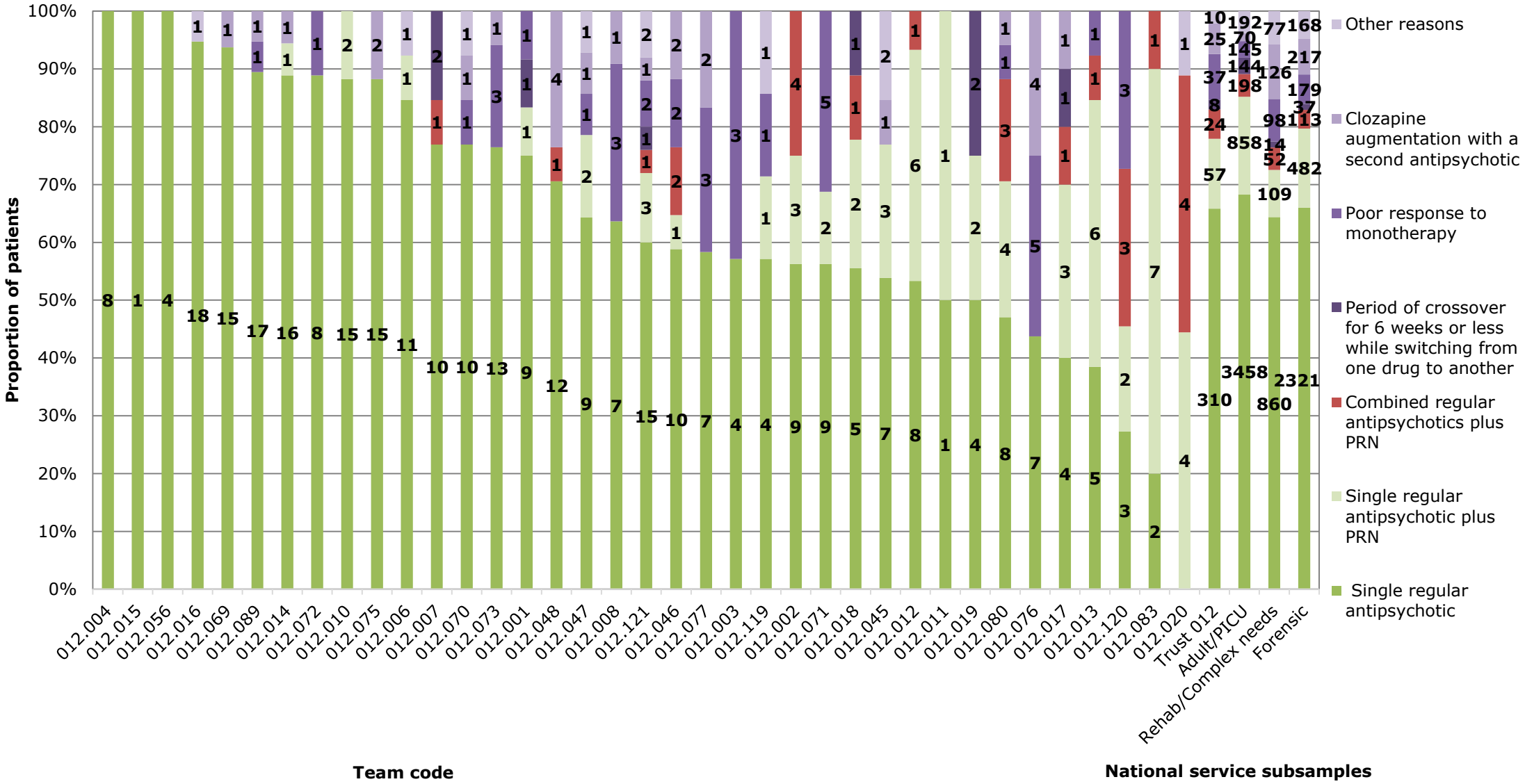
Practice standard 2
Individuals receive only one antipsychotic at a time.
This standard applies to 100% of individuals with schizophrenia. Exceptions: 'Individuals with schizophrenia who are receiving clozapine but who have not responded sufficiently; and individuals who are changing from one antipsychotic to another'.

Figure 35. Proportion of patients from each clinical team, your Trust (n=480) and the national service subsamples prescribed a single antipsychotic or an antipsychotic combination that did or did not include PRN



For your Trust, prescribing practice in the team at the left side of the Figure is closest to the audit standards. Practice in the team at the right of the Figure is furthest from the standards. Practice in your Trust as a whole and in the total national subsamples can be seen at the far right of the Figure. The numbers on the histogram represent actual numbers of patients.

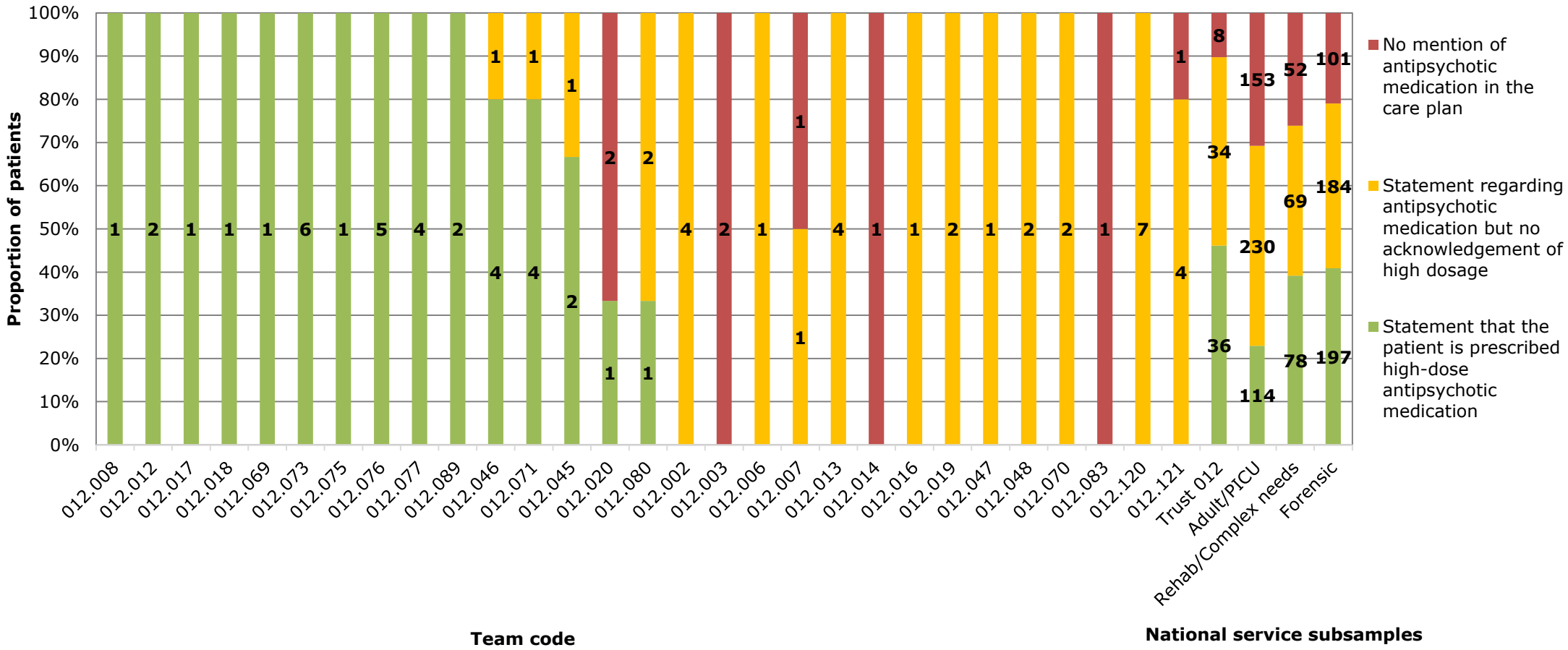
Figure 36. Reasons for prescribing more than one antipsychotic in each clinical team, your Trust (n=480) and the national service subsamples



For your Trust, prescribing practice in the team at the left side of the Figure is closest to the audit standards. Practice in the team at the right of the Figure is furthest from the standards. Practice in your Trust as a whole and in the total national subsamples can be seen at the far right of the Figure. The numbers on the histogram represent actual numbers of patients.

Practice standard 3
Where high-dose antipsychotics are prescribed, there should be a clear plan for regular clinical review including safety monitoring.

Figure 37. Proportion of patients prescribed <u>regular</u> high-dose antipsychotic medication, where there was a statement in the care plan that high-dose antipsychotic medication was prescribed, in each clinical team, your Trust (n=78) and the national service subsamples



Appendices

Appendix A: Demographic and clinical characteristics of the audit samples

Table 10. Detailed demographic characteristics of the service subsamples

Consistent with clinical expectations, the duration of admission is longer in forensic and rehabilitation/complex needs settings than in adult/PICU settings, and the proportion of patients with schizophrenia is higher. Almost all patients in forensic settings are detained under the Mental Health Act. A higher proportion of patients in forensic settings have a diagnosis of personality disorder and have multiple psychiatric diagnoses.

Key demographic and clinical characteristics		Adult/PICU n=5159	Rehabilitation /complex needs n=1350	Forensic services n=3563
Gender	Male	55%	64%	86%
	Female	45%	36%	14%
Mean age (± SD): years		44 (±15)	44 (±15)	39 (±12)
Duration of current admission	Less than 1 month	44%	5%	3%
	1 to 3 months	32%	9%	5%
	More than 3 months	24%	86%	92%
Ethnicity	White / White British	71%	80%	70%
	Black / Black British	12%	9%	14%
	Asian / Asian British	7%	4%	6%
	Mixed or other	7%	6%	7%
	Refused / not collected	4%	1%	2%
Psychiatric diagnoses ICD-10	F00-F09	2%	5%	2%
	F10-F19	13%	11%	13%
	F20-F29	56%	71%	78%
	F30-F39	27%	9%	7%
	F40-F49	4%	2%	2%
	F50-F59	1%	1%	<1%
	F60-F69	9%	15%	22%
	F70-F79	1%	7%	9%
	F80-F89	1%	4%	5%
	F90-F98	1%	2%	2%
	F99	1%	<1%	<1%
	Not known	4%	2%	2%
	More than 1 psychiatric diagnosis	17%	23%	31%
Mental health status	Informal	30%	18%	<1%
	Formal (detained under the MHA)	70%	82%	100%
Treatment legislation	Not subject to Consent to Treatment Legislation (CTL)	74%	25%	5%
	T2	12%	29%	55%
	T3	13%	44%	40%
	Treatment requires consent and a 2nd opinion	2%	3%	1%

Appendix B: Data Ownership

Data control statement for POMH-UK quality improvement programme 1g and 3d: Prescribing high dose and combined antipsychotics on adult psychiatric wards

Data ownership and control

In line with the original memorandum of understanding between POMH-UK and member healthcare organisations (predominantly mental health NHS Trusts), the following statement outlines the agreement regarding ownership of the audit data in this quality improvement programme.

Control of the local data submitted to POMH-UK is retained by the healthcare organisation that submitted them. These data have been made available to POMH-UK in a way that is anonymous, with the exception of the identity of the source organisation. The aggregate data from all participating organisations have been analysed by POMH-UK, to produce this customised report. This report summarises the national results, and local results at organisation and clinical team level, benchmarked anonymously against the other organisations taking part.

Data Sharing

There is a publication strategy allowing POMH-UK to publish the anonymous aggregated data on its web site and/or in appropriate scientific journals. Any organisations requesting these audit data will be referred to the POMH-UK reports appearing in the public domain or provided with a list of member healthcare organisations and asked to approach them individually. It is each organisation's decision whether, and with whom, to share their data.

Data for Quality Improvement

Given that the data are collected for the purpose of quality improvement they are not necessarily representative of performance across the Trust. The use of data for ranking or judgement at an organisational level may therefore not be appropriate. Participation in POMH QIPs can be considered to indicate engagement in quality improvement. Relative and absolute performance against the practice standards should always be considered with the above caveats in mind.

Reflection by clinical teams on their benchmarked performance is perhaps the most potent element of POMH-UK programmes. In addition to performance against the clinical standards, the audit data include demographic, diagnostic and other relevant clinical information that provide a context for interpretation and understanding of practice, which can inform local strategies and systems to achieve improvement. The data collected are designed to be suitable for this clinical purpose, and not for objective ranking of healthcare organisations, for which they are untested and would not necessarily be appropriate.

Appendix C: Participating Trusts

The Trusts and organisations that participated in this audit are listed below in alphabetical order:

5 Boroughs Partnership NHS Foundation Trust
Abertawe Bro Morgannwg University Health Board
Avon & Wiltshire Mental Health Partnership NHS Trust
Barnet, Enfield & Haringey Mental Health NHS Trust
Belfast Health and Social Care Trust
Berkshire Healthcare NHS Foundation Trust
Betsi Cadwaladr University Health Board
Birmingham and Solihull Mental Health NHS Foundation Trust
Black Country Partnership NHS Foundation Trust
Bradford District Care Trust
Cambridgeshire and Peterborough NHS Foundation Trust
Camden and Islington NHS Foundation Trust
Central and North West London NHS Foundation Trust
Cheshire and Wirral Partnership NHS Foundation Trust
Cornwall Partnership NHS Foundation Trust
Coventry and Warwickshire Partnership Trust
Cumbria Partnership NHS Foundation Trust
Derbyshire Healthcare NHS Foundation Trust
Dorset Healthcare University NHS Foundation Trust
East London NHS Foundation Trust
Elysium Healthcare
Forensic Network (Scotland)
Greater Manchester West Mental Health NHS Foundation Trust
Hertfordshire Partnership University NHS Foundation Trust
Humber NHS Foundation Trust
Hywel Dda University Health Board
Isle of Wight NHS Trust
Kent and Medway NHS and Social Care Partnership Trust
Lancashire Care NHS Foundation Trust
Leeds and York Partnership NHS Foundation Trust
Lincolnshire Partnership NHS Foundation Trust
Mersey Care NHS Trust
NAViGO Health and Social Care CIC
Norfolk & Suffolk NHS Foundation Trust
North East London NHS Foundation Trust
North Essex Partnership NHS Foundation Trust
North Staffordshire Combined Healthcare NHS Trust
Northamptonshire Healthcare NHS Foundation Trust
Northumberland Tyne and Wear NHS Foundation Trust
Nottinghamshire Healthcare NHS Trust
Oxford Health NHS Foundation Trust
Oxleas NHS Foundation Trust
Pennine Care NHS Foundation Trust
Rotherham, Doncaster and South Humber Mental Health NHS Foundation Trust
Sheffield Health & Social Care NHS Foundation Trust
Solent NHS Trust
Somerset Partnership NHS Foundation Trust
South Essex Partnership University NHS Foundation Trust
South London and Maudsley NHS Foundation Trust
South Staffordshire and Shropshire Healthcare NHS Foundation Trust
South West London and St George's Mental Health Trust
South West Yorkshire Partnership NHS Foundation Trust
Southern Health NHS Foundation Trust
St Andrew's Healthcare
St. Patrick's University Hospital
Sussex Partnership NHS Foundation Trust
West London Mental Health NHS Trust
Worcestershire Health & Care NHS Trust

Appendix D: Data collection form

Trust and team information (complete for all patients)

Q1. Trust identifier:
The Trust identifier is a 3-digit code (e.g. 044).

☐☐☐

Q2. Team identifier:
(The team identifier is your 3-digit team code e.g. 006). Your team codes are known only to your Trust.
The POMH-UK team cannot tell you what your team code is.

☐☐☐

Q3. Optional additional identifier:
This field gives your Trust the option of identifying data by site, lead consultant, or any other variable you wish. Your Trust can decide whether or not to use this field. Enter any numerical code you like in this field and keep a record for yourselves of what it means. If you don't want to use an additional identifier, simply leave this field blank.

☐☐☐☐☐☐☐

Q4. Initials of data collector:
Enter your own initials in this field (e.g. AB). This will enable your team to identify you should we need to query something about the data that have been entered.

☐☐☐☐

Patient information (complete for all patients)

Q5. Patient identifier:
Please assign a numerical code to each patient on whom data are collected, for example Joe Bloggs=1, Jane Bloggs=2.
Keep a record of these codes so you can identify patients should there be data cleaning queries.

☐☐☐☐☐☐☐

Q6. Patient's year of birth:
(YYYY e.g. 1998)

☐☐☐☐

Q7. Patient's gender:
(Please use patient's self-defined gender)

☐ *Male* ☐ *Female*

Q8. Duration of current admission:

☐ *Less than 1 month*
☐ *More than a month but less than three months*
☐ *Three months or more*

Q9. Patient's self-assigned ethnicity, as recorded in the clinical records:

☐ *White British/Irish or White Other* ☐ *Asian/Asian British* ☐ *Mixed* ☐ *Not stated/ refused*
☐ *Black/Black British* ☐ *Chinese* ☐ *Other ethnic group* ☐ *Not collected*

Q10. Adult inpatient ward type

☐ *General acute* ☐ *Treatment-resistant psychosis services*
☐ *PICU* ☐ *Rehabilitation/long-stay wards*
☐ *Forensic services* ☐ *Complex needs services (including challenging behaviour)*

Q11. Patient's clinical psychiatric diagnosis *(ICD-10 category: please tick all that apply)*:
(See guidance notes for further information)

☐ *F00-F09 (incl. brain injury)* ☐ *F40-F48* ☐ *F80-F89*
☐ *F10-F19* ☐ *F50-F59* ☐ *F90-F98 (incl. adult ADHD)*
☐ *F20-F29* ☐ *F60-F69* ☐ *F99*
☐ *F30-F39* ☐ *F70-F79* ☐ *Not known*

Q12. Patient's current Mental Health Act status:

☐ *Informal* ☐ *Formal: detained under the MHA*

Q13. Is this patient subject to consent to treatment legislation (CTL)?

☐ *Not subject to CTL*

☐ *Subject to CTL. Patient consents. English section 58 (form T2) or Scottish or Irish equivalent.*

☐ *Subject to CTL. Patient does not or cannot consent. English section 58 (form T3) or Scottish or Irish equivalent.*

☐ *Receiving treatment that requires consent and a second opinion. English section 57 or Scottish or Irish equivalent.*

Antipsychotic medication prescribed

Q14. Complete the form below for each oral or short-acting IM antipsychotic currently prescribed. (See guidance notes for further information).

Complete the dosage information for each drug that is currently prescribed for this patient (please leave others blank).
Each antipsychotic medication (first oral and short-acting IM, then depot and long-acting IM) is listed in alphabetical order.
Note: When entering dosage information for PRN medication, enter the maximum mg that could be administered in a 24 hour period.
For example, if a patient is prescribed chlorpromazine 50-100mg 4 hourly PRN, the maximum mg a day that could be administered is 100mg six times a day, a total of 600mg.

Amisulpride:

regular oral daily mg
PRN oral max daily mg

Aripiprazole:

regular oral daily mg
PRN oral max daily mg
regular IM daily mg
PRN IM max daily mg

Asenapine:

regular oral daily mg
PRN oral max daily mg

Benperidol:

regular oral daily mg
PRN oral max daily mg

Chlorpromazine:

regular oral daily mg
PRN oral max daily mg
regular IM daily mg
PRN IM max daily mg

Clozapine:

regular oral daily mg
PRN oral max daily mg

Flupentixol:

regular oral daily mg
PRN oral max daily mg

Haloperidol:

regular oral daily mg
PRN oral max daily mg
regular IM daily mg
PRN IM max daily mg

Levomepromazine:

regular oral daily mg
PRN oral max daily mg
regular IM daily mg
PRN IM max daily mg

Lurasidone:

regular oral daily mg
PRN oral max daily mg

Olanzapine:

regular oral daily mg
PRN oral max daily mg
regular IM daily mg
PRN IM max daily mg

Paliperidone:

regular oral daily mg
PRN oral max daily mg

Pericyazine:

regular oral daily mg
PRN oral max daily mg

Perphenazine:

regular oral daily mg
PRN oral max daily mg

Pimozide:

regular oral daily mg
PRN oral max daily mg

Promazine:

regular oral daily mg
PRN oral max daily mg
regular IM daily mg
PRN IM max daily mg

Quetiapine:

regular oral daily mg
PRN oral max daily mg

Risperidone:

regular oral daily mg

PRN oral max daily mg

Sulpiride:

regular oral daily mg

PRN oral max daily mg

Trifluoperazine:

regular oral daily mg

PRN oral max daily mg

Zuclopenthixol:

regular oral daily mg

PRN oral max daily mg

Zuclopenthixol acetate (Clopixol Acuphase):

Total dose in last three days (mg)

Other:

regular oral max daily mg

PRN oral max daily mg

regular IM daily mg

PRN IM max daily mg

Q15. Complete below for each depot or long-acting antipsychotic prescribed for administration within the last 4 weeks. (See guidance notes for further information).

If the prescription has changed in the last 4 weeks, enter the most recently prescribed dose only.

Aripiprazole:

Single or test dose (mg)

Regular IM (mg)

Injection interval (weeks)

Flupentixol decanoate:

Single or test dose (mg)

Regular IM (mg)

Injection interval (weeks)

Fluphenazine decanoate:

Single or test dose (mg)

Regular IM (mg)

Injection interval (weeks)

Haloperidol decanoate:

Single or test dose (mg)

Regular IM (mg)

Injection interval (weeks)

Olanzapine pamoate:

Single or test dose (mg)

Regular IM (mg)

Injection interval (weeks)

Paliperidone palmitate:

Single or test dose (mg)

Regular IM (mg)

Injection interval (weeks)

Risperidone:

Single or test dose (mg)

Regular IM (mg)

Injection interval (weeks)

Zuclopenthixol decanoate:

Single or test dose (mg)

Regular IM (mg)

Injection interval (weeks)

Q16. Please indicate below into which category this patient's current antipsychotic prescription (including PRN) falls: *(Please refer to the 'Ready Reckoner V6' to calculate dose as % of BNF max, see guidance notes for further information)*

- ☐ 1 single antipsychotic: dose within BNF recommended max
- ☐ 1 single antipsychotic: dose greater than 100% of BNF recommended max
- ☐ 2 or more antipsychotics: total dose within BNF recommended max
- ☐ 2 or more antipsychotics: total dose greater than 100% of BNF recommended max

Q17. If regularly prescribed more than 1 antipsychotic, OR a single antipsychotic at a dose greater than 100% of the BNF recommended max, what is the ONE main clinical reason for the combination/high dose according to the MDT. (See guidance notes for further information).

- ☐ Not applicable as only 1 antipsychotic prescribed at a dose within BNF recommended range
- ☐ Period of cross-over for 6 weeks or less while switching from one drug to another
- ☐ Poor response to monotherapy
- ☐ Control of behavioural disturbance or symptom exacerbation
- ☐ Clozapine augmentation with a second antipsychotic
- ☐ Management of immediate short-term episode of behavioural disturbance or symptom exacerbation
- ☐ Management of persistent verbal or physical aggression towards others (including staff)
- ☐ Management of persistent aggression towards self (self-harm)
- ☐ Management of any persistent aggression or behaviour disturbance
- ☐ Mood stabilisation
- ☐ Minimisation of side effects
- ☐ Patient choice
- ☐ Period of acute positive symptom exacerbation
- ☐ Reason unclear (e.g. long-standing regimen)
- ☐ Other*

*please specify:

Q18. Is this patient also prescribed any of the following medications?
If you are unsure about whether any prescribed medicines are benzodiazepines, antidepressants or anticholinergics, please ask a pharmacist or doctor.

- ☐ a benzodiazepine
- ☐ an antidepressant
- ☐ an anticholinergic
- ☐ valproate
- ☐ lithium
- ☐ carbamazepine
- ☐ lamotrigine
- ☐ none of the above

Q19. Is the patient's care plan accessible in the clinical records?

- ☐ Yes
- ☐ No

Q20. Does the care plan explicitly mention antipsychotic medication?

- ☐ Yes *(Go to Q20a)*
- ☐ No *(Go to Q21)*

Q20a. Is any of the following information about the currently prescribed antipsychotic regimen included in the care plan? *(Please tick all that apply)*

	Yes	No
The name of the antipsychotic medication	☐	☐
The daily dose of the antipsychotic medication	☐	☐
A statement that the patient is receiving high-dose antipsychotic medication. (Tick 'no' if the patient is not prescribed a high dose - see answer to Q16)	☐	☐

Q21. Regarding physical health checks and side-effect monitoring of this patient's continuing antipsychotic medication, which of the following have been assessed or measured in the past year?

	Yes	No
Temperature	☐	☐
Pulse	☐	☐
Blood pressure	☐	☐
Full blood count	☐	☐
Plasma glucose	☐	☐
Plasma lipids	☐	☐
Body weight/BMI	☐	☐
ECG	☐	☐
Examination/assessment for movement disorder (extrapyramidal side effects)	☐	☐

These data should be submitted online to POMH-UK by: 31 March 2017

If you realise that you have made a mistake submitting the data on this form online, you are able to edit submitted data before the data entry period ends. Keep a note of the receipt number shown after submission. You will need this to access this submitted form to correct any data entry errors.

You will not be able to correct your submitted data after the data entry period ends.

For further information please contact POMH-UK@rcpsych.ac.uk

Guidance Notes

Q11. Patient's clinical psychiatric diagnosis:

F00-F09	organic, including symptomatic, mental disorders e.g. dementia
F10-F19	mental and behavioural disorders due to psychoactive substance use
F20-F29	schizophrenia, schizotypal & delusional disorders
F30-F39	mood (affective) disorders e.g. bipolar affective disorder, recurrent depressive disorder
F40-F48	neurotic, stress-related & somatoform disorders e.g. agoraphobia, panic disorder
F50-F59	behavioural syndrome associated with physiological disturbance & physical factors e.g. anorexia
F60-F69	disorders of adult personality & behaviour e.g. paranoid personality disorder
F70-F79	mental retardation
F80-F89	disorders of psychological development
F90-F98	behavioural & emotional disorders with onset during occurring in childhood & adolescence
F99	unspecified mental disorder
Not known	the clinical team has not yet reached a diagnosis

Q14 & Q15. Dosage data for each antipsychotic prescribed: Each set of antipsychotics (first oral & short-acting IM, then depot & long-acting IM) is listed in alphabetical order. Complete the dosage information for each drug that is prescribed for that patient and leave others blank.

NOTE: When entering dosage information for PRN medication, enter the maximum mg prescribed, e.g. the amount that could be administered. For example, if a patient is prescribed chlorpromazine 50-100mg 4 hourly PRN, the maximum daily dose that could be administered is 100mg six times a day, a total of 600mg.

Where a drug is prescribed oral or IM PRN, enter the IM dose only. Where there is a prescription for both oral and IM and both could potentially be given, enter both.

PRN antipsychotics
Please note that these should be included in Question 14.

Q16. Calculating doses as a % of the BNF maximum
Use the ready reckoner supplied with this audit tool to easily calculate whether a single or combination of the antipsychotic dose is within or greater than the 100% of the maximum recommended by the BNF.

Locate the drug name on the ready reckoner, look along the card to locate the prescribed dose: the % of the BNF maximum is at the top of the card directly above the prescribed dose. Repeat for any additional antipsychotics prescribed and add together the percentages. If the total percentage figure is less than or equal to 100%, this is a 'regular dose', if the total is greater than 100% this is a 'high dose'.

Q17. Reasons for prescribing combinations
If a patient is prescribed two or more regularly prescribed antipsychotics in addition to some PRN, your answer should reflect the reason for the regularly prescribed combination rather than the PRN.

Appendix E: POMH-UK Central Team

Professor Thomas Barnes
Elizabeth Fagan
Emily Maynard
Carol Paton
Kanza Raza
Krysia Zalewska

Appendix F: References

Fleischhacker W *et al*. Effects of adjunctive treatment with aripiprazole on body weight and clinical efficacy in schizophrenia patients treated with clozapine: a randomized, double-blind, placebo-controlled trial. Int J Neuropsychopharmacol 2010,13;1115-25.

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POMH-UK, Topic 16a: Rapid tranquillisation in the context of the pharmacological management of acutely-disturbed behaviour (CCQI263) 2017.

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