



High Dose Antipsychotic Prescribing in Central Coast Area Mental Health

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Background

- Antipsychotic prescribing guidelines recommend the use of single agents and standard doses of medications
- Practically patients are commonly seen on multiple antipsychotics and exceeding the maximum recommend doses.
- Antipsychotic medication guidelines being reviewed by area health service (NSCCAHS)

Efficacy and adverse effect

- Clinical guidelines recommend the routine use of a single antipsychotic drugs in a standard dose¹, but prescriptions for high-dose and combined antipsychotics are frequently seen in clinical practice.
- There is no convincing evidence that combined antipsychotics are more effective than a single antipsychotic².
- Also, combining antipsychotics is a major cause of high-dose prescribing, an increased side-effect burden, and possibly mortality^{3,4}.

Efficacy and adverse effect (cont.)

- Despite this, cross-sectional surveys^{3,4} consistently find 40-50% of consumers receiving inpatient treatment for psychotic illness are prescribed combined antipsychotics.

Aims

- Obtain the current prescribing practice within the mental health setting of the Central Coast with respect to high dose antipsychotic medication.
- To identify any difference in antipsychotic prescribing in the High Dependency Unit (HDU) compared to general adult mental health units.

What is high dose?

- 'High dose' can result from the prescription of either :
 1. a single antipsychotic in a dose that is above the recommended maximumor
 2. two or more antipsychotics that, when expressed as a percentage of their respective maximum recommended doses and added together, result in a cumulative dose in excess of 100%

(The Maudsley Prescribing Guidelines 10th Edition p44)

Methodology

- Audit
 - Prescribing
 - Three discrete occasions over a four week period
 - Fortnight between each audit (interval determined by average length of stay)
 - Conducted across two general mental health units and one HDU
 - Demographic variable
 - Age, gender
 - Clinical variable
 - Name and doses of regular and PRN meds

Audit tool

- POMH-UK (Prescribing Observatory for Mental Health UK) Quality Improvement Project⁴
- Validated and Recognised Audit Tool with published results⁴
 - Conducted across UK (32 services participated, data for 3942 patients at baseline & 3271 patients at the 1 year later)
 - Comparable clinical practice, suitable international comparator
 - Clinicians had participated in and were confident of validity of model

Maximum oral dose recommendations in NSCCAHS

<u>ANTIPSYCHOTICS</u>			
Generic Name	Max daily dose (mg)	Generic Name	Max daily dose (mg)
Amisulpride	1200	Pericyazine	75
Aripiprazole	30	Quetiapine	800
Chlorpromazine	1000	Risperidone	8
Clozapine	600	Trifluoperazine	40
Haloperidol	20	Zuclopenthixol HCl	150
Olanzapine	20	Ziprasidone	160
Paliperidone	12		

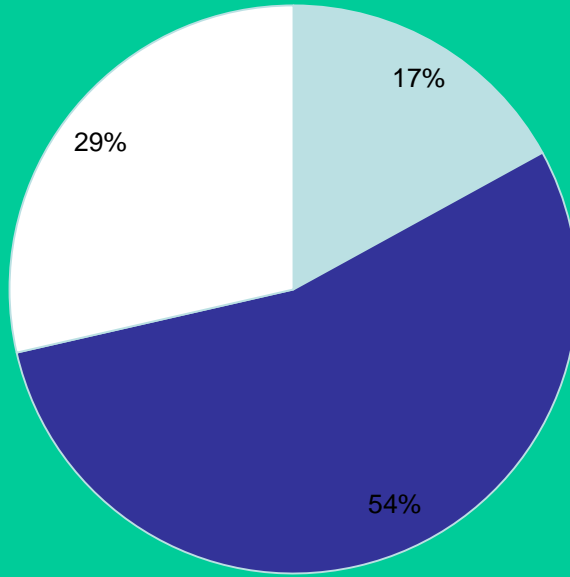
Maximum parenteral dose recommendations in NSCCAHS

Drug	Maximum dose
Fluphenazine decanoate (IM)	50mg weekly
Flupenthixol decanoate (IM)	100mg weekly
Haloperidol (IM/IV)	10mg
Haloperidol decanoate (IM)	300mg monthly
Risperidone Consta (IM)	50mg fortnightly
Zuclopenthixol Decanoate (IM)	400mg fortnight
Zuclopenthixol Acetate (IM)	150mg (max 400mg over a fortnight)

Results

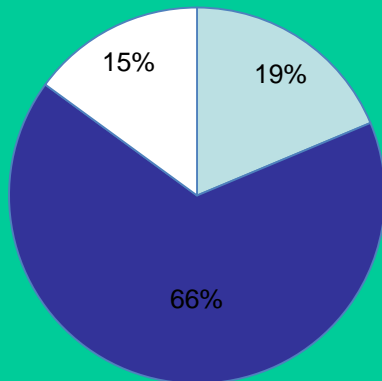
- Of the 111 individual patient's medication charts reviewed, 17% were prescribed over the maximum dose according to area health guidelines.
- When combined with maximum dosages for as needed (PRN) medications, this figure was 46%.

All patients doses



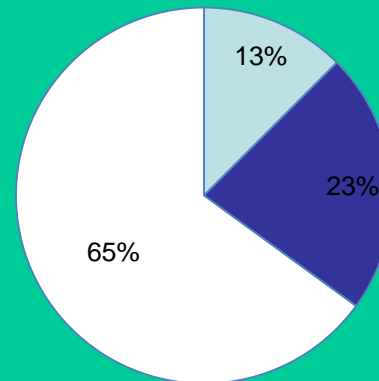
- Receiving above max dose with regular medications
- Receiving below max dose when prn meds included
- Receiving above max dose when prn meds included

General patients



- Receiving above max dose with regular medications
- Receiving below max dose when prn meds included
- Receiving above max dose when prn meds included

HDU patients

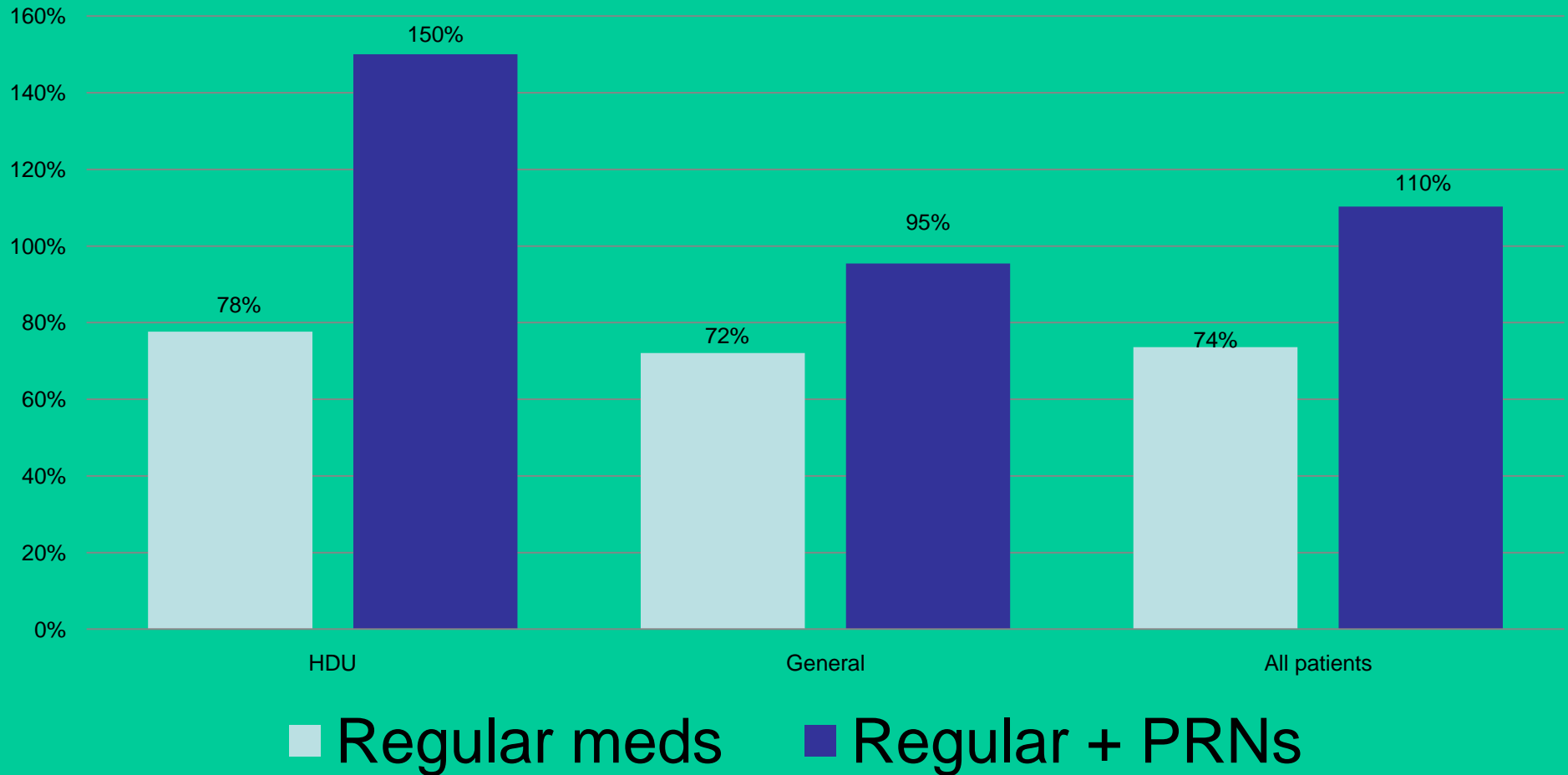


- Receiving above max dose with regular medications
- Receiving below max dose when prn meds included
- Receiving above max dose when prn meds included

Results

- As was expected differences in acuity between the wards was a major predictor to high dose prescribing.
- High dose PRN prescribing in high dependency units was greater than on general wards whilst regular medication prescribing remained similar.

Average Percentage of Maximum dose by Patient Group

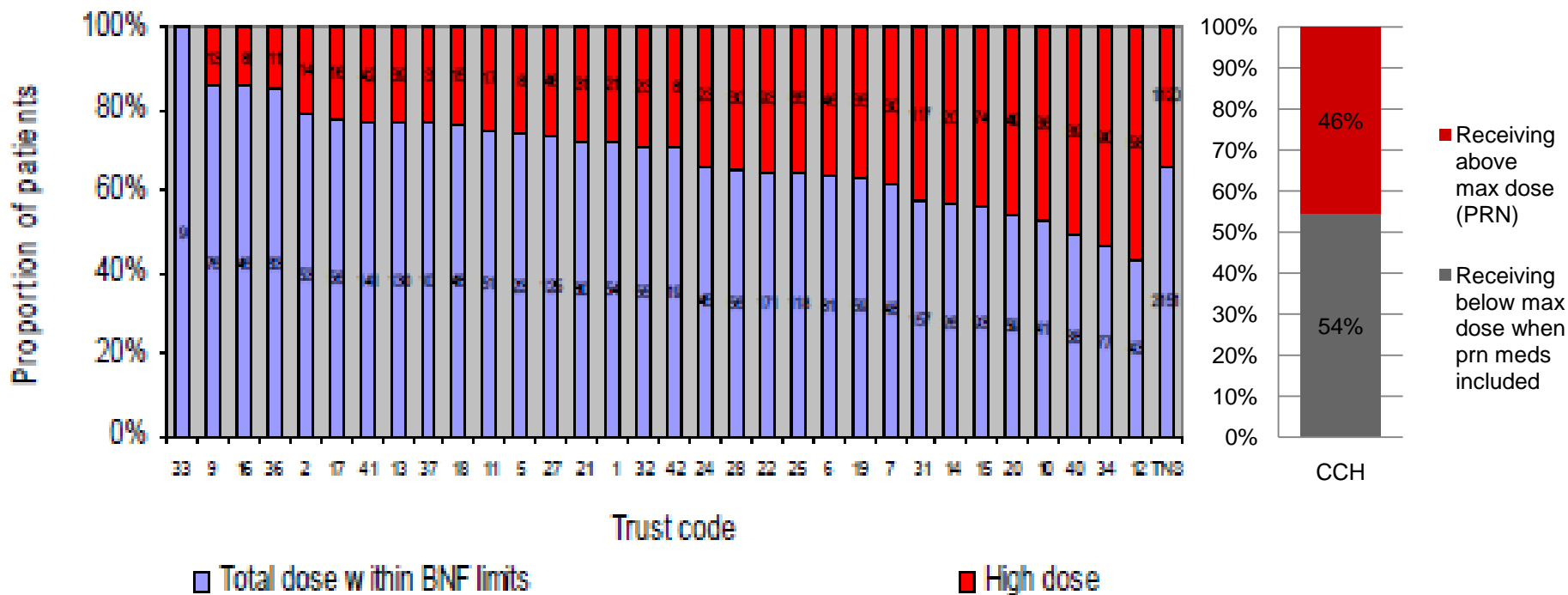


Comparative data

- Baseline prevalence of high dose prescribing
 - CCH – 46%
 - POMH-UK audit – 36% (Range of 8% - 56%)
- PRN prescriptions were the principle cause of high dose prescribing across CCH and POMH-UK audits

Comparison to POMH

FIGURE 3: Trust level results, showing the % of patients prescribed a total antipsychotic dose within the recommended (British National Formulary) limits from each Trust and the total national sample (TNS)



Nb. CCH data based on local dose range, not BNF

5. Prescribing Observatory for Mental Health UK
http://www.rcn.org.uk/data/assets/pdf_file/0008/13679/0/pomh_antipsychotics_adult_acute.pdf

Limitations

- Prescribing audit
 - Not administered
- Snapshot
 - 6 week period
- No separation by diagnosis
- Not investigating link between number of antipsychotics prescribed and potential for high dose prescribing

Recommendations

1. Consent
 - Informed where possible (Patient/Primary Carer/Legal status)
2. Documentation (Progress notes)
 - Set therapeutic goals/target symptoms
 - Clinician to Indicate interval of review
3. Safety Monitoring
 - As clinically indicated - eg
 - ECG due to QTc prolongation
 - EUC for electrolyte disturbances
 - AIMS (Abnormal involuntary Movement Scale) due to EPSE
4. Review
 - Assessment of target symptoms
 - ? If insufficient improvement, decrease to normal range?

Thankyou

References

- 1. Paton C, Barnes TRE, Cavanagh M-R, Taylor D, Lelliott P, for the POMH-UK project team. High-dose and combination antipsychotic prescribing in acute adult wards in the UK: the challenges posed by p.r.n. prescribing. *The British Journal of Psychiatry* 2008;192(6):435-9.
- 2. Centorrino F, Goren JL, Hennen J, Salvatore P, Kelleher JP, Baldessarini RJ. Multiple Versus Single Antipsychotic Agents for Hospitalized Psychiatric Patients: Case-Control Study of Risks Versus Benefits. *Am J Psychiatry* 2004;161(4):700-6.
- 3. Harrington M, Lelliott P, Paton C, Okocha C, Duffett R, Sensky T. The results of a multi-centre audit of the prescribing of antipsychotic drugs for in-patients in the UK. *Psychiatric Bulletin* 2002;26(11):414-8.
- 4. Taylor D, Paton C, Kerwin R. *The Maudsley Prescribing Guidelines*. 9th ed. London: Inform Healthcare; 2007.
- 5. Prescribing Observatory for Mental Health UK. Prescribing of high dose and combined antipsychotics is common on adult acute wards. *Royal College of Psychiatrists*; 2007 15/02/2011]; Available from: http://www.rcn.org.uk/data/assets/pdf_file/0008/136790/pomh_antipsychotics_adult_acute.pdf