

Rapid Tranquillisation: Is There a Clinical Consensus?

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Tranquillisation literally means calming without sedation. Rapid tranquillisation (RT) has been defined as “the use of psychotropic medication to control agitated, threatening or destructive psychotic behaviour” [1]. Incidence of violence and aggression in inpatient psychiatry has advanced the use of interventions such as RT to address behavioural emergencies. By administering psychotropic medication, RT attempts to manage agitation, threats, or other potentially dangerous behaviours. It is used when appropriate psychological and behavioural approaches have failed to de-escalate disturbed behaviour and is therefore essentially a last resort [2].

A trans-Atlantic comparison of physician preferences of RT was undertaken to examine practice in two centres in Canada and the UK. A questionnaire based on a 1994 survey developed by Cunnane [3] in the UK was modified slightly for a Canadian audience and electronically disseminated to a random sample of 100 psychiatrists and psychiatry residents from Queen's University Academic Health Sciences Centre. The survey featured a clinical vignette and then asked for the clinician's preferences for first and second (should the first not be effective) drugs of choice, route of administration, and estimated time to achieve a favourable outcome.

The clinical vignette is presented below

“A 35 year old inpatient presents with acute agitation, irritability and aggression thought to be due to a psychotic illness. There is no history of allergies or serious side effects due to antipsychotics in the past. There is no evidence of any co-morbid medical illness or substance misuse. You are considering rapid tranquilization as an option as all other measures of de-escalation have failed”.

Results were then compared to a similar survey conducted in the UK in 2009 (4). The study was reviewed for ethical compliance by Queen's University Health Sciences and Affiliated Teaching Hospitals Research Ethics Board.

Response rates

Overall, 41% of targeted clinicians in Canada (41/100) responded to the survey, in comparison to 53.7% in the UK (51/95), this response rate was not significantly different ($p = 0.144$). Significantly more Canadian psychiatrists responded ($n = 69, 69\%$) than UK Consultants ($n = 29, 30.5\%$), $p = 0.007$, while significantly more UK psychiatry residents ($n = 66, 69.5\%$) than Canadian psychiatry residents ($n = 31, 31\%$), $p = 0.003$ responded.

Drugs of First Choice

Among Canadian respondents, olanzapine and haloperidol were the most popular drugs of first choice (63.4% and 14.6% respectively), while only 2.4% selected lorazepam and 19.6% selected other medications. In the UK, there was preference for lorazepam, olanzapine and haloperidol (45.1%, 33.3%, 11.8% respectively). Canadian respondents significantly preferred olanzapine over the UK respondents, $U = 731, p = 0.004$, however preference for lorazepam was significantly greater in the UK than Canada, $U = 599.5, p < 0.001$. Figure 1 shows the preferred medications of first and second choice.

Routes of Administration

68.3% of Canadian respondents preferred the oral route of administration for their first choice, however 31.7% did opt for intramuscular as their first choice. 78.4% of UK respondents selected the oral route of administration as their first choice. The preference for dissolvable tablets was more than three-fold in Canada (75.9%) compared to the UK (21.1%) $p < 0.001$.

Desired outcome

The majority of clinicians preferred “calm but awake” over sedation as the desired outcome in less than 60 minutes. When the desired outcome was not attained, significantly more Canadian respondents (80%) reported re-administering the same drug than UK respondents (33%), $p < 0.001$.

Limitations

As this was a clinical vignette survey, and not a survey about actual practice incidents, the responses may reflect idealized responses rather than actual practice. The survey was also administered electronically and without oversight, allowing for the potential for respondents to look up the “correct” responses according to their practice guidelines.

In summary two centers in Canada and the UK complied with national guidelines. The differences in preferences are secondary to differences in guideline recommendations. This lack of consensus is not limited to the CPA (5) and NICE (6) guidelines. Research has shown that RT recommendations have been based partly on research data and partly on clinical experience [2] and previous studies have revealed suboptimal RT practices and lack of consensus between RT guidelines [4,7]. In yet another article by this author [4,8], seven guidelines on RT from five English speaking countries were appraised. The guidelines lacked consensus despite being underpinned by the same evidence pool. Future studies should include more countries and larger sample sizes, and examine the rationale behind guideline practice recommendation discrepancies.

Date	Source	Guideline	Drugs recommended	Route	Comments
2005	Canada	Canadian Psychiatric Association (CPA)	1 st Choice: Dissolvable SGAs	PO	Zuclopentixol acetate: Recommended to avoid repeated injections, except in drug naïve patients.
			2 nd Choice: Haloperidol 5 mg + lorazepam 2 mg or olanzapine (2.5-10 mg)	IM	
2005	UK	National Institute for Clinical Excellence Guidelines (NICE)	1 st Choice: Haloperidol/lorazepam/olanzapine/risperidone	PO	Olanzapine/risperidone: avoid in dementia. Benzodiazepine/haloperidol: IV in exceptional cases Oral or IM lorazepam alone: non-psychotic behavioural disturbance IM (haloperidol + promethazine) /IM midazolam: very exceptional cases. Zuclopentixol acetate: recommended in few, other than drug naïve patients. Chlorpromazine: not recommended at all.
			2 nd Choice: Haloperidol + lorazepam or olanzapine	IM	

Table 1: Overview of CPA and NICE RT Guidelines.

Variable	UK (n = 51)	Canada (n = 41)	p-value
Response rate	53.7%	41%	0.144
Residents/Trainees	69%	31%	0.003
Psychiatrists/Consultants	31%	69%	0.007
Quick response reported	96%	89%	0.354
Repeat initial choice of medication	33%	80%	< 0.001
Dissolvable tablets for RT	21%	76%	< 0.001
Route of administration <PO>	78.4%	68.3%	0.274
Desired outcome <Calm but awake>	90.2%	78%	0.109

Table 2: Composition of Clinician Respondents, Desired Outcomes and preferences for Routes of Administration.

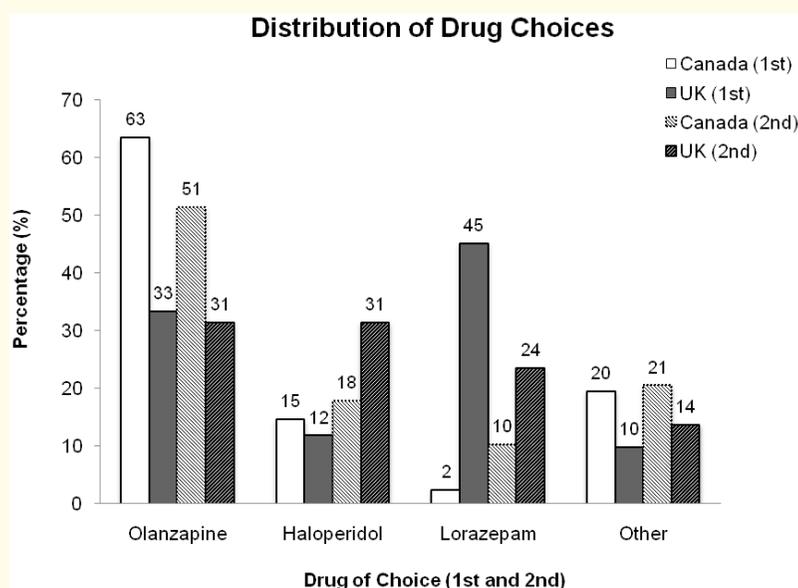


Figure 1: Preferred first and second medication choices by Canadian and UK respondents.

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