Psychotropic medication optimisation in adults with intellectual disability

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RADiANT research network seminar

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Psychotropic prescribing in intellectual disability

- Complexities in prescribing for this group
  - Long-term use of medication
  - Unclear indications
  - Off-label prescribing
  - Lack of availability or effectiveness of alternatives to medication
  - Decision-making capacity and best interests
  - Resistance to change and 'status quo' bias
  - **Lack of evidence base**

What happens when anti-psychotics used for challenging behaviour are reduced?

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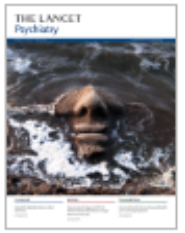

Review

Reduction or discontinuation of antipsychotics for challenging behaviour in adults with intellectual disability: a systematic review

Dr Rory Sheehan MSc [a], Prof Angela Hassiotis PhD [a]

What happens when anti-psychotics used for challenging behaviour are reduced?

- **Aim:** a systematic review to investigate the outcome of reduction or discontinuation of long-term anti-psychotic drugs used for challenging behaviour in adults with an intellectual disability

- **Primary outcome:** proportion of people achieving reduction or withdrawal

- **Secondary outcomes:** change in behaviour, physical or mental health, cognitive or adaptive function, quality of life

What happens when anti-psychotics used for challenging behaviour are reduced?

- Inclusion: **adults** (>17 years), with **intellectual disability** (any degree), prescribed a long-term (>12 weeks) **antipsychotic** (any) drug, for **challenging behaviour** (author defined), in the absence of a diagnosis of severe mental illness

- Any study design, any reduction protocol, any simultaneous intervention

What happens when anti-psychotics used for challenging behaviour are reduced?

- **21 studies**
  - RCT (*n*=1)
  - Observational designs (*n*=20)

- Most conducted in USA, some European, 1990-2014

- Participants were mostly male, severe-profound intellectual disability, living in institutions, prescribed first-generation anti-psychotic drugs

- Significant variation in how medication was reduced and how results were reported including follow-up times

What happens when anti-psychotics used for challenging behaviour are reduced?

- Wide estimates of **'success'** of reduction or discontinuation: too broad to give a summary estimate of how many within the group as a whole may be maintained on a lower dose or have their anti-psychotic stopped completely

- Effect of anti-psychotic reduction on **behaviour**: equivocal findings. Some studies report no change (or even improvement) in behaviour, others report a behavioural deterioration which could persist

- Effect on **mental health**: not measured in any study

What happens when anti-psychotics used for challenging behaviour are reduced?

- **Physical health**: withdrawal dyskinesias, reduced burden of autonomic side-effects, improvement in metabolic parameters

- **Cognition or adaptive function**: some studies showed evidence of improvement.

What happens when anti-psychotics used for challenging behaviour are reduced?

- Are there predictors of successful or unsuccessful attempts to reduce or discontinue anti-psychotic medication?

- Unsuccessful attempts associated with:
  - Higher baseline anti-psychotic dose
  - Higher baseline behavioural symptoms
  - Higher baseline psychopathology
  - Absence of other psychotropic drugs
  - **More restrictive environments**
  - **Lower levels of staff training**

So, what can we say?

- A substantial proportion of individuals in whom a concerted effort was made to reduce antipsychotic drugs can achieve discontinuation or dose reduction

- Clinicians can reasonably attempt to reduce antipsychotics in patients who are prescribed them for challenging behaviour

- However, many of those in whom attempts were made to reduce or discontinue antipsychotic medication could not tolerate reduction and required re-prescribing and anti-psychotic reduction is not without risks

So, what can we say?

- We found little evidence to guide de-prescribing in this context or to identify who might benefit the most

- High-quality de-prescribing studies are not easy (e.g. ANDREA-LD)

- We need to take an individual approach to (de-)prescribing … **medication optimisation**

Making the most of prescribed medication

- **Medication optimisation** is a broad approach that encompasses different strategies
  - Educational interventions
  - Formularies
  - Best practice / consensus guidelines
  - Benchmarking prescribing rates
  - Patient decision aids
  - **Medication review**

- **Medication review** is a structured and critical evaluation of medication

A method for structured medication review in secondary care

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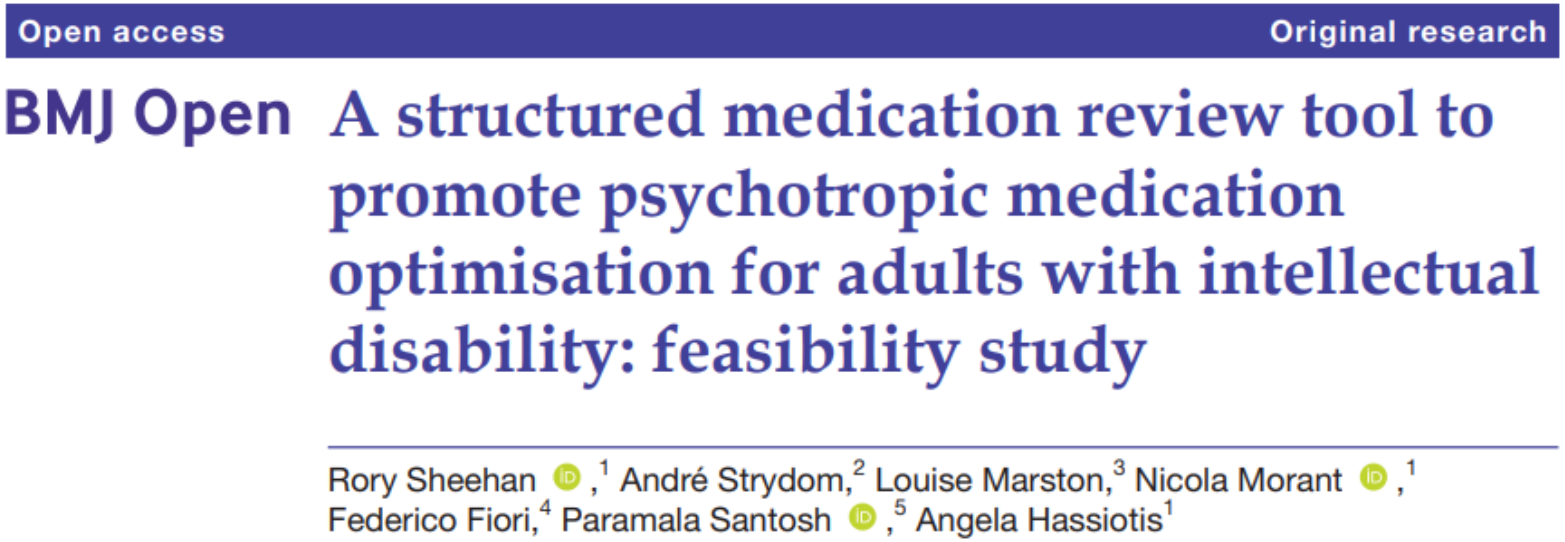

Open access Original research

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A structured medication review tool to promote psychotropic medication optimisation for adults with intellectual disability: feasibility study

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A method for structured medication review in secondary care

- Can a structured medication review tool be introduced in Community Learning Disability Teams?

- The 'HealthTracker™' tool

The HealthTracker™ tool

- An online platform to capture and store data
- Can be used to support medication review
- Medication effects are measured with a symptom improvement scale and a side-effect scale
  - Symptom improvement – Clinical Global Impression (CGI)
  - Major side-effects as four-point scale
  - Both are clinician-rated
- Ratio between improvement and adverse side-effects attributed to a medication is the Efficacy Index (EI)

Efficacy Index

Modified Efficacy Index: rate on basis of drug effect only

	SIDE-EFFECTS			
THERAPEUTIC EFFECT Not Assessed=00 (TS=00;EI=0.00)	**None** **(No Side-effects)**	**Side-effects do not significantly interfere with functioning (Mild, not needing intervention)**	**Significantly interferes with functioning (Moderate, needing some intervention)**	**Outweighs therapeutic effect (Severe, need to stop or change treatment)**
MARKED - vast improvement. Complete or nearly complete remission of all symptoms (CGI-I = at least one 'very much improved')	**01** (TS=41;EI=4.00)	**02** (TS=42;EI=2.00)	**03** (TS=43;EI=1.33)	**04** (TS=44;EI=1.00)
MODERATE - decided improvement. Partial remission (CGI-I = at least one 'much improved' and no 'very much improved')	**05** (TS=31;EI=3.00)	**Olanzapine** **06** (TS=32;EI=1.50)	**07** (TS=33;EI=1.00)	**08** (TS=34;EI=0.75)
MINIMAL - slight improvement which doesn't alter status of care of patient (CGI-I = at least one 'minimally improved' and no 'much improved' and no 'very much improved')	**09** (TS=21;EI=2.00)	**10** (TS=22;EI=1.00)	**11** (TS=23;EI=0.67)	**12** (TS=24;EI=0.50)
UNCHANGED OR WORSE - (CGI-I = no change or worse and no 'minimally improved', 'much improved' and 'very much improved')	**13** (TS=11;EI=1.00)	**14** (TS=12;EI=0.50)	**15** (TS=13;EI=0.33)	**16** (TS=14;EI=0.25)

The HealthTracker™ logic

- Ensures a place for a detailed discussion of medication
- Systematic and thorough method for monitoring and recording medication effects
- Standardised over time and between clinicians
- Clinician-rated scales are informed by patients and/or carers with flexibility in how information is elicited
- Efficacy Index could help to support decision making

Feasibility metrics

1)	Invite clinical teams and clinicians	→ Interest
2)	Identify and recruit participants	→ Recruitment
3)	Clinicians able to use the HealthTracker™ in appointments during study period	→ Uptake
4)	Participant question at end of appointment	→ Acceptability
5)	Clinician user questionnaire at end of study period	→ Adaptation

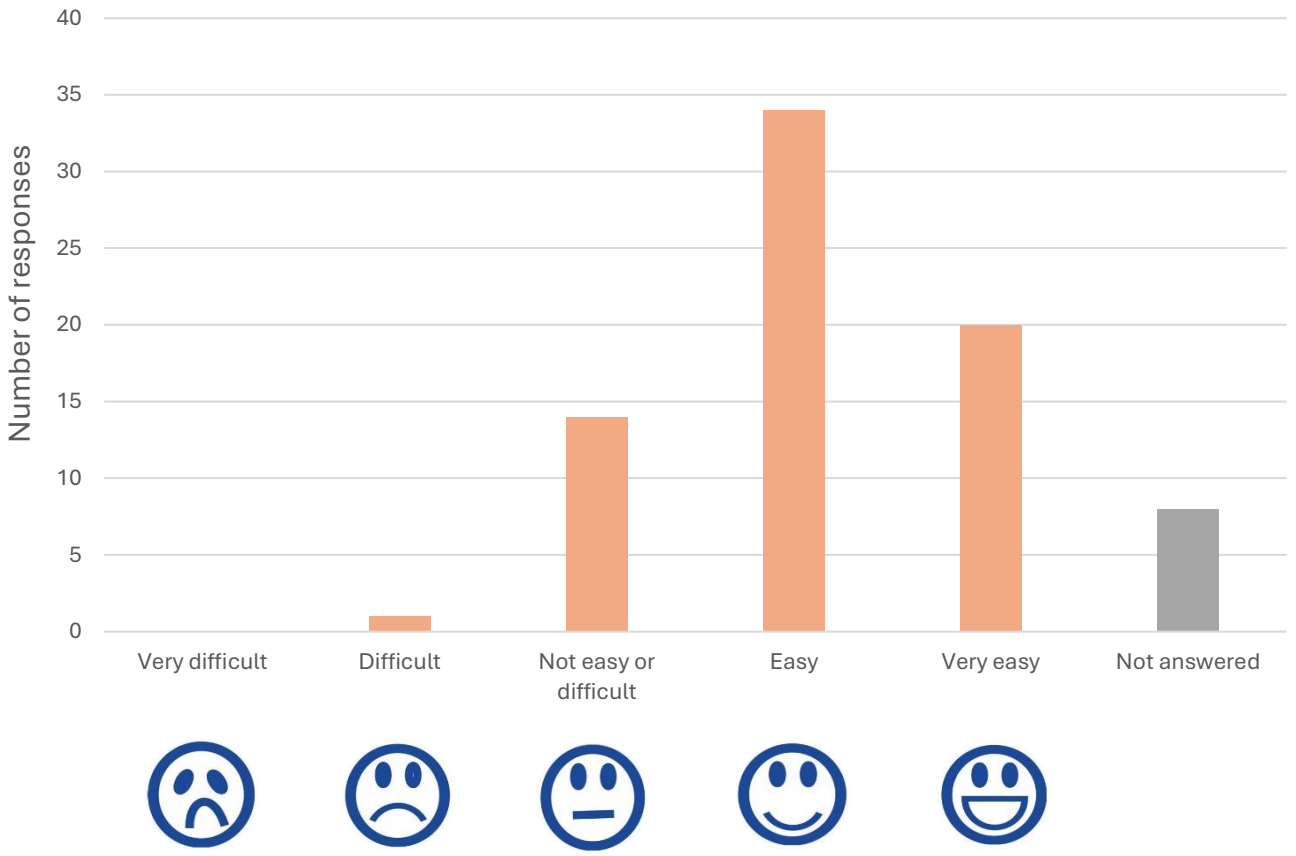
Feasibility and uptake

- 15 clinicians across 5 Community Learning Disability Teams

- Used the HealthTracker to review medication 97 times in 68 patients over a 6-month period

Participant acceptability

How easy was it to say everything you wanted to say about medication today?



Clinician evaluation

Adaptations needed
More user friendly, more accessible to people with ID

Promoted medication discussions
Thorough, systematic, focused, objective

Resistance to concept
No benefit, threat to autonomy

Supported decisions
Did not replace clinical judgement, gave confidence

Relational disruption
Interrupted consultation

Practical barriers
Time, internet connection

Conclusions

- HealthTracker™ (or similar) is a feasible intervention to assist structured medication review in adults with intellectual disability
- It would be suitable for testing in a definitive clinical trial
- Experience of engaging clinicians and recruiting participants can inform any future study
- HealthTracker™ requires some adaptation in conjunction with stakeholder groups to maximize uptake and utility

Final thoughts

- Medication prescribing does not occur in isolation
- Changes in long-term medication may be difficult to achieve
- Systematic and standardised medication review may contribute to a programme of **medication optimisation**

Thank you

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