Original Research Paper

Canterbury medication reviews: a case series review of the medications of nine IHC clients

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Key points
• International and New Zealand studies indicate a trend towards the overuse of medications for people with intellectual disabilities
• Individual reviews of nine patients achieved reductions in the volume of medications used
• There was a swing away from major tranquillisers and tricyclic antidepressants in favour of the newer antidepressants.
• All patients were either improved or unchanged in their mental states and behavioural presentation.
• Changes in costs of the prescribed medications were negligible

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ABSTRACT

This paper reports the process and outcomes of systematically reviewing all the medications taken by a group of nine people living in IHC residences in Canterbury. Prescription with individual drugs had been initiated in response to acute events at least five years before this review. Regular repeat pre-scribing had continued, without patients' entire drug consumption having been critically examined before.

The consulting psychiatrist at the outpatient service run by the Psychiatric Service for Adults with Intellectual Disability, at Sunnyside Hospital in Christchurch, carried out these reviews.The reviews achieved a reduction in the volume of medications prescribed and, within this trend, a swing away from major tranquillisers and tricyclic antidepressants in favour of the newer antidepressants. Changes in costs were negligible. The results for these patients suggest that the new medication regimens may be targeting diagnosed conditions (perhaps those with a component of anxiety) that had not been identified before.

INTRODUCTION

The common overmedication of people with intellectual disabilities has been well described both in the international literature 1-3 and locally. 4 IHC has taken a number of initiatives to address this situation.5 These include: introducing educational and support programmes for GPs and other primary health workers, developing networks of hospital consultants for referral, introducing an annual health screen for IHC residents, making library resources available for medical practitioners, and starting a number of research projects to improve the care of people with an intellectual disability.

These initiatives have also involved collaborating with psychiatrists who have specialised in the care of people with intellectual disability, to review the case notes of people with a history of neuroleptic medication use without recent specialist review.

This report describes the medication change outcomes for nine IHC residents whose care was reviewed in this way.

METHOD

Nine IHC residents, who had been taking neuroleptic medications for at least 10 years and who had not had

their medication reviewed for more than five years, attended the outpatient service run by the Psychiatric Service for Adults with Intellectual Disability at Sunnyside Hospital. The consulting psychiatrist there (LM) carried out these reviews to determine if the pharmaceutical component of each individual's care could be managed with more suitable (for that person) alternative medications or doses.

The reviews were carried out over a period of three years. Within this time period, individual reviews took an average of 13.75 months each. Each review involved an initial assessment of patients' medication and a general assessment of their wellbeing. Changes to long term medications were made if they were indicated by the patient's clinical condition. Patients were then followed up to ensure that changes were associated with health gains, rather than adverse effects.

At the start of the review process, the residents were aged between 27 and 65 years (mean age: 46.2 years). Five were male and four were female. None had acute psychiatric symptoms at the time of the review. IHC residents were selected for this process because they were taking multiple neuroleptic medications, and had been without an overall review of their medication for an extended period.

To compare changes in the major tranquillisers, doses were converted to chlorpromazine equivalents, using the conversion system developed by Atkins, Burgess et al. 1997.6 Antidepressant, anticholinergic and anticonvulsant medications were compared directly. Standardised 1997 prices were used to compare medication costs before and after the review.

RESULTS

Changes in usage of pharmaceuticals

The outcome of the case review with respect to changed pharmacotherapy regimes of participants is shown in Table 1. There were fewer major tranquillisers and anti-Parkinson agents prescribed after the review, tricyclic antidepressant prescriptions were stopped or changed for serotoninergics, and some new serotoninergics were introduced. Phenobarbitone was reduced. Only carbamazepine prescription was held fairly constant.

Patient progress

All patients were either improved or unchanged in their mental states and behavioural presentation. The psychiatrist comments:

" For one person who had been on trime-prazine and methotrimeprazine, her family and caregivers commented positively on reduced sedation and she was also able to reduce her weight after years of unsuccessful dieting.

"For another person, the gradual reduction in antipsychotic dosage was accompanied by a real blossoming of personality with greater spontaneity, social awareness and alertness. The person would not have been described as sedated prior to the medication reduction but her potential was clearly [in retrospect] being suppressed by the medication.

"One person on long term antipsychotics showed marked orofacial tardive dyskinesia, a clear reason for attempting to reduce anti-psychotic use. At time of reporting, significant changes in this had not yet occurred."

Changes in costs of pharmaceuticals

Savings in costs were negligible. The savings achieved by reducing some medications were offset by additional costs of the serotoninergic antidepressants that had been introduced for two people. However, at the time that the post-intervention assessments of the medication levels were taken, two people were still on reducing regimens.

DISCUSSION

Most prominently, the outcomes indicate that the reviews achieved an overall reduction in the volume of medications prescribed for the reviewed IHC residents, and, within this trend, there was a swing away from major tranquillisers and tricyclic antidepressants towards the newer antidepressants.

This suggests that the new medication regimens may be better targeting conditions (perhaps those with a component of anxiety) that had not been identified before. The reviews are continuing, and so further reductions in medications can be reasonably expected. For the same reason, financial savings might yet occur.

This is not a report of a controlled drug reduction intervention study. It is simply a descriptive report of a limited case series. It does however, demonstrate that nine people from a client group that is historically overmedicated can have their medications revised and reduced, with no decline in their clinical condition (and perhaps an improvement), and with no immediate increase in costs.

Ultimately, long term savings may eventuate (as the review process continues). There is a need for more

systematic, controlled drug reduction programmes to explore more fully the effects of altering the medication regimens of intellectually disabled people, especially those with epilepsy. The authors are hoping to address this need in the near future.

Client	Pre review drug	Post review drug	Change in volume	Change in cost ($)
1	Haloperidol 330mg	Haloperidol 150mg	-180mg	-0.2396
	Thioridazine 100mg		-100mg	-0.2057
	Carbamazepine 600mg	Carbamazepine 600mg		
	Benztropine 4mg	Benztropine 3mg	-1mg	-0.108
		subtotal	**-281mg**	**-$0.55**
2	Thioridazine 75mg	Thioridazine 225mg	+150mg	+0.2926
	Methotrimeprazine 150mg		-150mg	-0.6431
	Carbamazepine 800mg	Carbamazepine 800mg		
	Procyclidine 5mg		-5mg	-0.074
		Paroxetine 20mg	+20mg	+1.68
		subtotal	**+15mg**	**+$1.26**
3	Chlorpromazine 150mg	Chlorpromazine 150mg		
	Trifluoperazine 280mg	Trifluoperazine 400mg	+120mg	+0.0432
		subtotal	**+120mg**	**+$0.04**
4	Carbamazepine 600mg	Carbamazepine 500mg	-100mg	-0.0
	Trimeprazine 200mg		-200mg	-0.6336
	Methotrimeprazine 25mg		-25mg	-0.3999
		Paroxetine 20mg	20mg	1.68
		subtotal	**-205mg**	**+$0.65**
5	Thioridazine 250mg	Thioridazine 50mg	-200mg	-0.0922
	Benztropine 2mg		-2mg	-0.004
		subtotal	**-202mg**	**-$0.10**
6	Trifluoperazine 300mg	Trifluoperazine 300mg		
	Doxepin 100mg		-100mg	-0.18
	Benztropine 2mg	Benztropine 2mg		
		subtotal	**-100mg**	**-$0.18**
7	Thioridazine 100mg	Thioridazine 75mg	-25mg	-0.0008
		subtotal	**-281mg**	**-$0.00**
8	Haloperidol 170mg	Haloperidol 100mg	-70mg	-0.0884
	Methotrimeprazine 300mg		-300mg	-1.09
	Procyclidine 15mg	Procyclidine 5mg	-10mg	-0.148
		subtotal -	**380mg**	**-$1.33**
9	Thioridazine 30mg	Thioridazine 30mg	-45mg	
	Phenobarbitone 60mg	Phenobarbitone 15mg	-0.051	

		subtotal	**-45mg**	**-$0.05**
		TOTAL	**-1,359mg**	**-$0.26**

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