Practical ways of alleviating auditory hallucinations

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In selected patients auditory hallucinations have been found to respond to several non-pharmacological interventions,¹ among the simplest of which are the use of an ear plug,² the use of a personal cassette recorder,³ and various vocalisation tasks.⁴ We evaluated the acceptability and efficacy of these interventions in patients with chronic schizophrenia.

Patients, methods, and results

We studied 20 consecutive patients with chronic schizophrenia (17 inpatients and three outpatients) who had been referred for non-pharmacological treatment of persistent auditory hallucinations. All were receiving maintenance treatment with antipsychotic drugs.

We tested three treatments: (a) ear plugs—the patient inserted a wax ear plug into one ear; (b) subvocal counting—the patient repeated a simple number sequence (for example, 1 2 3, 1 2 3, . . .) under his or her breath; and (c) a personal cassette player—the patient listened to music through the headphones of a portable cassette player. (Patients could use the cassette player for pleasure as well as for treatment, and it was made clear that keeping the player was not contingent on its use or success as a treatment.) The treatments were introduced separately in the order ear plug, subvocal counting, and cassette player. The patients were advised to use each treatment during the week after its introduction whenever the voices became troublesome. The effects of the treatment were evaluated from the patient's subjective report. At regular follow up appointments (at least monthly) we noted whether the patient continued to use any of the treatments to alleviate the hallucinations.

The table shows the immediate effects of the treatments and their long term use. All three patients who refused any treatment described their hallucinations as unpleasant in content but of great significance. One patient stopped treatment with the cassette player when his voices threatened him for trying to stop them. Only one patient reported that none of the treatments was effective. In most cases the beneficial effects of

treatment were limited to the period of use and shortly thereafter. Five patients, however, reported a more general effect of treatment on the frequency or intrusiveness of their hallucinations; two of these said that the hallucinations disappeared completely for several months after they used the ear plug.

Immediate effectiveness and long term use of treatments in 20 cases

	One or more treatments	Ear plug	Subvocal counting	Cassette player
Patients attempting treatment	17	13	8	15
Patients reporting some immediate beneficial effects	16	8	5	14
Patients using treatment long term	11	4	2	7

Comment

The cassette player was the most popular and effective treatment, but headphones may restrict social interaction and are not always socially appropriate. Although wearing an ear plug was preferred by fewer patients, it has the advantage of being compatible with any other activity. Subvocal counting was the least popular treatment; an easier subvocal task for future use may be singing quietly to oneself. The cassette player and ear plugs probably involve two processes important for relieving auditory hallucinations¹—namely, shifting attention and reducing anxiety—and subvocal counting may work by disrupting the subvocal activity that is concomitant with the voices. Whatever the theoretical arguments, auditory hallucinations can be a persistent and distressing symptom so these simple, cheap, and practical ways of alleviating them may be useful adjuncts to antipsychotic drugs. That they are non-invasive and carry no risk of adverse reactions or side effects are additional attractions.

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Quality of prescribing of intravenous antibiotics in a district general hospital

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The number of patients being admitted to hospitals is increasing and treatment is becoming more intensive. In one study the use of intravenous cannulas increased by 150% from 1981 to 1989 yet junior medical staffing levels increased by only 8% over the same period.¹ Thus junior medical staff are spending more of their time performing procedures relating to intravenous treatment, and it has been suggested that hours and conditions could be improved by redistributing some of these tasks to non-medical staff, as is practised in many European countries.² We carried out a survey to

assess the participation of nursing staff in giving intravenous antibiotics and the effect this had on quality of prescribing.

Patients, methods, and results

The survey was carried out over one complete week during winter 1989-90 in a district general hospital with 570 beds distributed among 10 disciplines, including a supraregional referral centre for neurosciences and two intensive therapy units. Data were collected by three junior microbiology staff, in collaboration with pharmacy staff, on all inpatients who had been prescribed intravenous antibiotics. The staff recorded the drug prescribed, its dose and frequency, the times it was due to be given (as stated on the prescription chart), the presence or absence of the signature of the person who gave each individual dose, and the discipline of the person who gave the drug. We then calculated the average times between doses for

twice a day, three times a day, and four times a day regimens from collected data.

Overall, 179 regimens were prescribed during the survey week: 10 twice a day, 134 three times a day, and 35 four times a day. The table shows the average times between doses for three times a day and four times a day regimens by specialty. The average time between doses for twice a day regimens was 12 hours in all cases.

Average times between doses of intravenous antibiotics by regimen and specialty

Specialty	Average time between doses			
	1st-2nd	2nd-3rd	3rd-4th	Last dose-1st next day
<i>Three times a day regimens</i>				
Neurosciences	7 h 30 min	8 h 20 min		8 h 10 min
Surgical units	4 h 40 min	8 h 40 min		10 h 40 min
Medical units	4 h 20 min	8 h 40 min		11 h
<i>Four times a day regimens</i>				
Neurosciences	5 h 50 min	5 h	4 h 40 min	8 h 30 min
Surgical units	5 h 10 min	4 h	5 h	9 h 50 min
Medical units	4 h 40 min	4 h 40 min	5 h	9 h 50 min

Nursing staff were responsible for giving intravenous antibiotics at night in the general and neurosurgical intensive therapy units, five of six neurosciences wards, one of nine medical wards, and none of 10 surgical wards. All doses during the day were given by junior medical staff. Nursing staff were responsible for giving overnight doses in 62 of the 179 regimens. Confirmatory signatures after giving a dose were missing from three (5%) regimens given by both nurses and doctors and from 23 (20%) given by doctors only. All doses given in the twice daily regimens were signed for, but in 21 (16%) of the three times a day regimens and six (17%) of the four times a day regimens there were missing signatures.

Comment

On units where nursing staff gave intravenous antibiotics there was clearly an improvement in prescribing quality, in terms of times and recording, compared with units where giving them was solely the responsibility of junior medical staff. The most commonly prescribed times for giving three times a day regimens were 10 am, 2 pm, and then 10 pm. This practice created a long interval between successive doses overnight and occurred on all units where

nursing staff did not give intravenous antibiotics. We found similar deviations with four times a day regimens. Such long intervals may lengthen the time that the concentration of antibiotic in the serum falls below the minimum inhibitory concentration of the target organism, and this is thought to be particularly important in relation to β lactam antibiotics.³ Seventy six (57%) of the three times a day and 27 (77%) of the four times a day regimens used in our survey were for β lactam antibiotics.

This survey suggests that the quality of intravenous antibiotic prescribing needs to be improved. Firstly, the way in which drugs are given could be changed, and various methods could be used. These include the use of longer half life preparations, continuous delivery systems using syringe drivers, preprepared bags containing set doses, and the greater use of oral drugs, such as ciprofloxacin, which have pharmacokinetic properties comparable with parenteral counterparts. Some of these systems may also encourage greater participation of nursing staff in intravenous treatment. Secondly, junior medical staff seem to be finding it increasingly difficult to give antibiotics at the correct times, and this is probably due to a combination of increasing workloads with current on call practices. One way of improving the likelihood of doctors being able to give all doses at the correct times would be the introduction of a shift system. Finally, as there has been a rapid proliferation in intravenous treatment in recent years, it makes sense to give all medical and nursing students formal training in this subject, although, according to one recent survey of junior doctors, this has not been the case.⁴

As a result of this survey we hope to see a greater participation of nursing staff in giving intravenous drugs at this hospital.

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ONE HUNDRED YEARS AGO

One result of the interest created by "General" Booth's book has been the wider recognition of many useful agencies already at work. To many of these increased funds have, we trust, been given, and to all a stimulus to benevolent activity. The newspaper discussion, which still goes on, must also develop a keener sense of the responsibility which attaches to the possession of wealth in the midst of want. We can nevertheless easily understand how dislike of the methods and the manners of the Salvation Army has inspired a good deal of the adverse criticism of the Booth scheme. The methods may seem foolish, the manners may be vulgar, but the poverty and misery of "the submerged tenth" are near and actual, the dangers are remote, and the public have given the money required, influenced less by the dim and distant possibilities than by the probabilities of present good. Previous

efforts to grapple with the problems of poverty have been too limited in their action. An example of a well-conceived scheme, which has succeeded admirably in a limited area, is to be seen in the society called "The North Kensington Friendly Workers amongst the Poor." All classes and all sects have united to investigate and organise this district, so that they know that no poor person need suffer, starve, or be in want. By means of a workroom, a labour bureau, and systematic visitation and relief, this Society has apparently solved the question for North Kensington. If every district in London could have done the same as Mr. H. C. Burdett and his colleagues have done in this instance, "the General" would have been anticipated, but it is in this very universality of its application that the chief merit of the Booth scheme resides. (*British Medical Journal* 1891;i:29)