

worst attendees were 30–44-year-old men. There was also a core contingent of regular non-attendees, with 14/69 (20%) patients not attending  $\geq 3$  outpatient appointments in the last year. Patients with the whole spectrum of rheumatological disease missed appointments. As expected, most patient with musculoskeletal disorders (eg osteoarthritis) were discharged. While patients with rheumatoid arthritis, systemic lupus erythematosus and spondyloarthropathies tended to be re-arranged appointments. Overall 46% patients had re-arranged appointments.

#### When do patients DNA?

Most appointments were missed on Monday (17.5%) and Friday (14%), compared to 4% on Wednesdays. Weather appeared to have very little effect on DNA rate, and was prospectively categorised as 'good' or 'bad' at 9 am or 2 pm. On 'good' days 12.4% of patients DNA, compared to 14.6% on 'bad' days.

#### Why do patients DNA?

Reasons for not attending appointments were divided into clerical errors, patient factors and unable to contact patient for variety of reasons. The most common reasons were in line with previous studies: 10/69 did not receive their appointment reminder and 9/69 forgot about it (Table 1).

Other notable findings included large numbers of clerical errors, including a patient registered as dead on the hospital computer still having several outstanding appointments, and frequency of incorrect contact details (13/69).

#### Conclusions

DNA rates at St Mary's rheumatology outpatient appointments are in line with national figures, but this still equates to about 20 hours of wasted clinic time over a four-week period leaving significant room for improvement. Suggested changes include:

- reminder texts/emails, targeting young patients who frequently miss appointments and have easy access to this form of communication
- targeted reminders for the 20% of patients who regularly DNA
- improve methods for cancelling appointment eg email
- careful review of DNA notes to prevent inappropriate rebooking
- reduce clerical errors by emphasising importance of booking correct type of appointment, and checking patient contact details at every opportunity.

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#### References

- 1 Information Centre for Health and Social Care. [www.ic.nhs.uk](http://www.ic.nhs.uk)
- 2 Did not attend. *Bandolier* 1999;69–4. [www.jr2.ox.ac.uk/bandolier/band69/b69-4.html](http://www.jr2.ox.ac.uk/bandolier/band69/b69-4.html)
- 3 WM Macharia et al . An overview of interventions to improve compliance with appointment keeping for medical services. *JAMA* 1992;267:1813–17.

### A system for prescribing oral potassium supplements

#### Introduction

Hospital inpatients often need oral potassium supplementation. Ensuring safe administration requires regular checking of serum potassium. Clear instructions are needed about the dose, target potassium level, frequency of blood testing and the results. We have developed guidelines to support safer administration.

#### Guidelines on oral potassium supplementation

When prescribing oral potassium (Fig 1), the prescriber should:

- write K<sup>+</sup> and the initial value of serum potassium on the first line of the administration record in red
- choose a suitable preparation of potassium and dose regime
- prescribe the potassium at 12.00 and 18.00 for a twice daily regime (and also at 22.00 for a thrice daily); this allows that day's blood test to be available before the first administration times. NB. If a slow release preparation of potassium (eg Slow K<sup>®</sup>) is chosen, it should not be prescribed at 22.00, to avoid the risk of oesophageal ulceration
- specify the target serum potassium level that is required in the box for special instructions
- specify the date when the serum potassium level is to be checked by drawing a box on the administration record (this should usually be daily)
- complete the necessary pathology request forms for the potassium levels to be checked.

**Table 1. Most common reasons for missed appointments.**

Category	Reason	n
Unable to contact patient	Patient could not speak English	2
	No reply × 3	19
	Wrong number	7
	No phone number	6
Clerical errors	Appointment not cancelled	1
	Patient attended	1
	Appointment card did not correspond to appointment time	1
	Wrong hospital booked	1
	Wrong appointment booked	3
	Inconvenient time	4
	Did not receive appointment	10
Patient factors	Other	5
	Arrived late for appointment	2
	Resolved	3
	Ill on day of appointment	5
	Forgot appointment	9

REGULAR PRESCRIPTIONS			Date and Month							
Drug (approved name)		Dose	Time	1	2	3	4	5	6	7
EFFERVESCENT POTASSIUM		24 mmol	K <sup>+</sup>	2.7	3.1	3.6				
Special instructions		Route	Pharm	12.00	AN	AN	AN			
Until K <sup>+</sup> > 4.0 mmol/L		ORAL								
Date	Sign (NAME & bleep)	Discontinued Date and Initial	18.00	AN	AN	AN				
01-xx-xx	A Doctor (1000)									

Fig 1. Example of a prescription for oral potassium supplements.

Before administering the oral potassium:

- the potassium result must be checked and recorded in red within the box by a doctor or the nurse administering the medication
- the potassium should not be administered:
  - until the blood result is obtained from the laboratory
  - if there is no indication when a further blood test is to be carried out
  - if the result is above the target level indicated on the drug chart.

#### Discussion

Recording the initial potassium level and the target value gives clarity about the aims of supplementation. It also highlights the importance of follow-up blood tests. More boxes for recording the blood results can be added (and path forms completed) if the target level is not immediately achieved. Having the results of serum measurements recorded on the prescription chart itself has clear advantages. Writing the K<sup>+</sup> results in red improved clarity – it highlighted that this first line of the prescription chart was being used for blood results. The first dose is not given until 12.00 to allow decisions to be based on that morning's blood result.

Training staff has not proved difficult; they have readily understood the logic, and the advantages of integration. The guidelines were laminated and placed on each ward. Staff were already familiar with the boxes being drawn on prescription charts to show when blood samples were needed for gentamicin levels. Many hospitals have insulin charts on which blood glucose is documented.

There have been no previous published guidelines for prescribing potassium supplements; these are straightforward and

can be readily implemented. Copies of the guidelines are available as a pdf, please contact: David.Clements@anhst.nhs.uk

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#### Impact of centralisation of specialist services on sister hospital specialty opinion demand and consultant job plans

Along with the trend for integration of respiratory specialist care with the local community, centralisation of existing secondary care services represents another pressure on consultant job plans. The North Bristol Lung Centre at Southmead Hospital was formed in October 2006 by centralisation of respiratory services onto a single site from the previous two site base. This reconfiguration allowed the development of respiratory services, adjustment of the bed base and pre-empted service changes required by the forthcoming new North Bristol hospital development. Despite real success in targeting respiratory admissions to the lung centre there remained a need to provide respiratory support to Frenchay Hospital. This was provided by a consultant-led weekday respiratory opinion service. The impact on consultant workload of providing such a service has been examined.

All 310 referrals seen at Frenchay over a six-month period (September 2007 to March 2008) were prospectively recorded and independently analysed for appropriateness and number of referrals per day.

Over this period 2.68 (2.03) (mean, sd) referrals/day were seen, varying from 1.68 (1.17) in December 2007 to 4.2 (2.6) in February 2008. Assuming an average 30 minutes/referral (this excludes inter-hospital and inter-ward travel time and also ad hoc non-written requests for an opinion and so is likely to be an underestimate), this equates to 1.34 hours/day (1.68 PA/week equivalent). The variation however is significant from 0.84 to 2.1 hours/day (1.05 to 2.6 PA/week equivalent).

There was minimal diurnal variation in workload with a range of 2.29 (1.94) to 2.52 (1.61) referrals/day for four days of the week. Tuesdays were an exception being busier at 3.52 (2.61) referrals/day, attributed to a higher proportion of consultant physician- and surgeon-led ward rounds, that are the main source of referrals, occurring on the previous day. About 19% required re-review after initial tests reflecting the complexity of some of the cases.

Of note, the vast majority of referrals were appropriate (91%, with only an additional 8% from surgical firms more appropriate for general medicine) indicating a genuine need for specialist opinion. The reasons for referral comprised the expected categories of respiratory disease including suspected lung cancer (19.4%), airways disease (18.1%), pulmonary infection (16.1%), pleural disease (10.6%), interstitial disease (10%), ventilation/sleep disorders (8.7%) and pulmonary vascular disease (7.7%), but also a significant proportion of undiagnosed respiratory problems (9.4%).

In summary, following centralisation of respiratory services onto a single site in the two hospital trust, a continuing need for respiratory services on the sister site has been met by a consultant-led service. The demand has proved largely appropriate representing a real clinical need and has required 1.68 PA (1.05–2.6) of consultant time per week. This information may prove useful to other providers considering similar service reconfiguration but will require ongoing re-evaluation.

#### Key points

- 1 Consolidation of secondary care services on one site requires residual specialist input to the sister hospital for a genuine need.