



## Audit

# A prospective audit of the implementation of the 2-week rule for assessment of suspected urological cancers

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**Introduction:** All urology departments are under considerable pressure to comply with the UK Government's implementation of the 2-week rule for suspected cancer referrals. A prospective audit was planned to begin 6 months after introduction of cancer referral guidelines and a central data collection process, to investigate the local workload generated by these referrals, and compliance with the 2-week rule.

**Methods:** Data were collected prospectively over an 8-week period. All referral letters were examined by an independent urologist for any of the criteria defined by the regional tumour working group as suspicious of urological cancer. For suspected cancer referrals, the patient journey was followed to assess efficiency of the referral process. Results were compared with figures for '2-week rule' referrals for the Trust obtained from the UK Department of Health (DoH) website.

**Results:** In all, 234 GP referrals were reviewed, 82 fitting regional criteria for suspected cancer. Of these, (i) 13% were either marked urgent with a clear statement of 'cancer' or included a clear request to be seen within 2 weeks; (ii) 23% included no implication of cancer; (iii) 72% were seen in haematuria clinic, median time to clinic visit being 56.5 days, none complying with the 2-week rule; and (iv) of referrals not seen in haematuria clinic, median time to clinic was 21 days, with 34% compliance. With more stringent definitions of a cancer referral, DoH figures for the Trust recorded just 18 referrals over 3 months, with 89% compliance.

**Discussion:** GP referral letters meeting guidelines for suspected cancer often failed to imply or mention this. Compliance with the 2-week rule was poor, especially for the haematuria clinic. This is variably attributable to wording of GP letters, communication issues, and the sheer load of patients to be seen.

**Conclusion:** DoH criteria for cancer referrals grossly underestimate the true magnitude of workload demanded of the service.

*Key words:* 2-week rule – Audit – Urological cancer referrals

Government pressure persists on hospital-based clinicians to see patients with suspected cancer urgently, and specifically to meet the '2-week rule', that is to see such patients within 2 weeks.<sup>1</sup> While this rule is familiar to most,

it is important that its exact meaning be defined before local data can be interpreted in the framework of these national guidelines. The UK Department of Health's (DoH) definition of this rule is that the patient should be

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Table 1 Urological cancer referral guidelines, as defined by the South Thames Tumour Working Group,<sup>3</sup> with number of suspected cancer referrals (total 82) that were received according to these guidelines in the 8-week audit period

Criterion for suspected cancer	Number (% of all suspected cancer referrals)
Macroscopic haematuria in adults	45 (55)
Microscopic haematuria in adults over 50 years	15 (18)
An elevated age-specific PSA in men with a 10-year life expectancy	9 (11) <sup>a</sup>
A high PSA (> 20 ng/ml) in men with clinically malignant prostate or bone pain	8 (10) <sup>a</sup>
Swellings in the body of the testis	5 (6)
Any suspected penile cancer	1 (1)
Solid renal mass found on imaging	0 (0)
Palpable renal masses	0 (0)
None <sup>b</sup>	3 (4)

<sup>a</sup>2 patients met both of these criteria, therefore total appears 2 greater than actual figure of 82.

<sup>b</sup>These patients were included as they specifically met the DoH definition of referrals to be included under the 2-week rule, but did not meet any of the above criteria. Example: patient with microscopic haematuria, under 50 years, with request to be seen urgently, possible cancer.

seen within 2 weeks from the time of the GP's decision to refer<sup>2</sup> and that the referral should be received by the hospital the following day.

Furthermore, for a referral to be counted by the DoH as an urgent cancer referral, it must either be marked 'urgent' with a mention of 'cancer', or include a specific request to be treated under the 2-week rule. This clearly simplifies data collection on a national basis, when including all specialities, but in reality, many other possible cancer referrals are sent to a consultant which are not so clearly marked and are, therefore, not included in a DoH audit.

For urological cancers within the South Thames region, specific guidelines exist indicating which patients should be seen urgently with suspected cancer,<sup>3</sup> as outlined in Table 1.

DoH figures are available online for the number of 'cancer referral' patients that are seen, both within 2 weeks of referral and beyond.<sup>4</sup> These figures are broken down for specialities and for individual regions and Trusts. We believed the quoted total for our region to be a gross underestimate of the true workload generated by those that should be treated as suspected cancer according to the regional guidelines. Therefore we conducted an audit of all referral letters received by the Urology Department of St Helier Hospital, Surrey, containing one or more of our suspected urological cancer guideline criteria – not just those conforming to the DoH criteria. Our aim was to compare our findings with those from the DoH. We believed that findings using our criteria would portray a more realistic view of the patient load seen in a urology department, and more accurately represent the specialist's moral obligation to see all cases of suspected cancer on an urgent basis.

## Methods

This was a prospective study, looking at all referral letters sent to the Urology Department of St Helier Hospital (incorporating St Helier, The Nelson and Sutton Hospitals) over an 8-week period during June and July 2001. This was 6 months after the introduction of regional cancer referral guidelines. We looked specifically at the GP referrals that were deemed possible cancer referrals. This was based on the content of the letter, using the guidelines mentioned above, and it was noted whether or not the GP had stated urgent/2-week rule or if the possibility of cancer was clearly stated or implied by the GP.

Whether or not a GP implied the possibility of cancer was judged subjectively by us. Such referrals do not clearly state 'cancer' but there are factors within the letter that suggest the GP suspects cancer. An example would be a request to see 'this patient who has a 6-month history of weight loss and back pains, and who has been found to have a PSA of 82', without an overt statement of cancer. For other referrals, we decided that the GP had not stated or implied the possibility of cancer despite the letter conforming with the South West Thames Tumour Working Group guidelines for suspected cancer referrals. An example of such a referral would be 'please see routinely this 55-year-old gentleman with microscopic haematuria'.

We noted how many GPs made use of a specific cancer-referral form that was available to them.

As a primary end-point, we looked specifically at the length of time from referral date to out-patient appointment date. We were then able to see, with the larger volume of patients represented by our interpretation of suspected cancer referrals, to what degree we were able to comply

Table 2 Type of GP comments in the 82 possible cancer referrals

GP comments in letter	Number of letters
Suspected cancer form used	0 (0)
See within 2 weeks*	3 (4)
Possibility of cancer stated + 'urgent'*	7 (9)
Possibility of cancer stated - 'urgent'	7 (9)
Possibility of cancer implied	46 (56)
Possibility of cancer neither stated nor implied	19 (23)

\*These 10 referrals meet DoH criteria of those to be considered under the 2-week rule.

with the 2-week rule. Results were then divided into haematuria clinic referrals and other suspected cancer referrals, as the department has a very large number of referrals for the haematuria clinic that might potentially alter the overall results.

Local data for cancer referrals were then obtained from the DoH for comparison.

## Results

A total of 269 referrals were received, 234 from GPs, 35 from other departments within the hospital. Of the 234 GP referrals, there were 82 (30%) containing information that fell under our regional guidelines for suspected urological cancer referrals, and/or specifically stated 'urgent, suspected cancer' or 'see under 2-week rule'. Table 2 presents data for the types of comments included in the referral letter from the GP. Of note, only 10 of the 82 letters (13%) classified by us as 'cancer referrals' were marked 'urgent' with a specific mention of 'cancer' or contained a clear request to be seen within 2 weeks. These would be referrals included by the DoH as cancer referrals using their criteria. 23% included no implication of cancer. Of the GP referrals 37% were sent by fax, the remainder were conventionally mailed letters (none were sent via E-mail). No referrals were found that used the 'suspected cancer' form.

The data show an overall median time from referral to out-patient appointment of 40 days, with just 13% being seen within 2 weeks. We present data separately for those

patients who were booked into haematuria clinic and those into other clinics. Of the suspected cancer referrals, 72% were seen in the haematuria clinic with a median time from referral date to clinic visit of 56.5 days. None of these were seen within 2 weeks. Of the referrals seen in general clinics, the median time to clinic attendance was 21 days, 35% complying with the 2-week rule. The full results are given in Table 3.

Results from the DoH website, acquired for comparison, state that over a 3-month period, the Epsom & St Helier NHS Trust received just 18 suspected cancer referrals between its four hospitals. Of these, 100% received by the hospitals within 24 h of a referral being sent were seen within 2 weeks, compared to 83% of those received more than 24 h later.

## Discussion

A recent report from the DoH presented '2-week rule' data collected across the country for all specialities between April and June 2001.<sup>5</sup> The report states that more than 90% of patients referred urgently with suspected cancer regardless of speciality, were seen within 2 weeks of referral. However, the quoted figure of 92.4% applies only to those patients whose referrals were received by an individual Trust within 24 h of the patient seeing their GP. Interestingly, it is reported that cancer referrals are received within 24 h almost 6 times as commonly as those received after more than 24 h. Of the referrals received more than 24 h after GP consultation, only 70.5% were seen within 2 weeks.<sup>4</sup>

When looking specifically at urological cancer referrals, the DoH states that only 18 suspected urological cancer referrals were received by all hospitals within our Trust over a 3-month period. Our results, taken over 8 weeks from St Helier and its associated hospitals only (not including Epsom Hospital), imply that this is just the tip of the iceberg, and that the DoH is in fact not addressing the true magnitude of the problem. Our department received 82 referrals that the local Tumour Working Group guidelines imply should be treated as suspicious of cancer. We are sure that most colleagues

Table 3 Time taken to see patients in clinic after possible cancer referrals

Patient seen in:	Time interval from letter date to OPA date (days)			% seen in OPD within 14 days of letter date
	Median	Mean	Range	
Other clinics (n = 31)	21	27.8	8-97	35
Haematuria clinic (n = 51)	56.5	53.8	20-80	0
All referrals	40	42.1	8-97	13

OPA, out-patient appointment; OPD, out-patient department.

would concur that the DoH figures do not represent a realistic figure of the workload generated by suspected cancer referrals. The DoH later confirmed that they gained their figures purely from suspected cancer forms, and use these for auditing purposes. However, their guidelines clearly state that all referrals meeting their given criteria for the '2-week rule' should be treated as such – not just those on these suspected cancer forms. Clearly, this makes their auditing process somewhat unrepresentative of the workload faced by a department. Even as suspected cancer forms become used more commonly, there do remain many referrals that should probably be treated as 2-week referrals but are not sent using these forms, and many more that meet regional guidelines for suspected cancer.

Notably, of the 10 referrals we found that specifically requested a 2-week appointment or which were marked both 'urgent' and 'cancer' (Table 2), 9 (90%) were seen within 2 weeks.

For haematuria clinic appointments, the median time to be seen in the clinic is considerably greater, at 56.5 days, with none being seen within 2 weeks. It should be noted that during the 2 months of the audit, 2 haematuria clinics were cancelled (one for maintenance of X-ray equipment, and the other for a Trust-wide audit day). This illustrates an obvious problem related to normal hospital workings. Even so, most patients still would not have been seen within the 2 weeks.

Our figures clearly do not match up with those produced by the DoH. We believe the low percentage of patients referred to our hospital that were seen within 2 weeks largely illustrates the magnitude of the workload already imposed on busy clinics. It may also partly represent a failure of GPs to recognise the importance of various symptoms and, therefore, request that patients be seen urgently, or directly quote the 2-week rule. However, the figures do serve to remind hospital clinicians to be vigilant for any mention of suspicious symptoms amongst the many referral letters received.

Our results highlight a number of communication issues between GPs and the hospitals for suspected cancer referrals. First, GPs had access to the specific cancer referral form, designed in association with the local cancer working group, no referrals were found that used this form.

Second, only 37% were sent by fax, none by E-mail. We are intrigued that the DoH report that cancer referrals are received within 24 h across the country 6 times more often than those received greater than 24 h after referral. This target would obviously be made much easier to achieve with the increased use of referrals by fax or E-mail.

Third, for auditing purposes, it is essential that dates letters are sent, received and read be always marked clearly by the appropriate clinician or assistant. This was certainly not the case in all of the referrals that we examined. This illustrates a number of issues of process that would need to be addressed separately to improve overall performance. These would include, for example, the need for a more efficient system for referral letters to be read after they have been received by the department.

## Conclusions

We believe that our audit, using the regional Tumour Working Group guidelines, has included a larger number of patients with suspected cancer who would not be included by the DoH's more limited criteria. Our data represent a much more realistic view of the work generated in a district general hospital department for possible cancer referrals and show that, despite failing to meet Government targets for the 2-week rule, patients are nonetheless being seen encouragingly quickly. The Government should pay close attention to findings such as these, and note the important differences from their own methods of data collection. It may then hopefully address the real issues of funding for extra clinic slots to allow the real number of patients with suspected cancer to be seen within the 2 weeks required.

## References

1. Department of Health. *The New NHS White Paper*. London: HMSO, 2000.
2. Winyard G. Breast cancer waiting times – achieving the two week target. *Health Service Circular* 1998; HSC 1998/242.
3. South-West Thames Tumour Working Group for Urology.
4. [www.doh.gov.uk/cancerwaits](http://www.doh.gov.uk/cancerwaits) (accessed December 2001).
5. Mayor S. More than 90% of urgent cancer referrals seen within two weeks. *BMJ* 2001; **323**: 591.