

Referral Management

The NHS is addicted to waiting lists. Referral Management systems work by recreating them in primary care, where they are not measured.

PCTs congratulated their Hospital Trusts on reducing waiting times and at the same time they chastised them for over-performing, as if the two things were not somehow related.

Now that waiting times have come down and are planned to come down further, the law of diminishing returns starts to kick in. The graph below is taken from Professor Pidd in his article on the web¹. It plots expected waiting time (any units) Vs rate patients can be “serviced” (treated). It is a logarithmic graph:

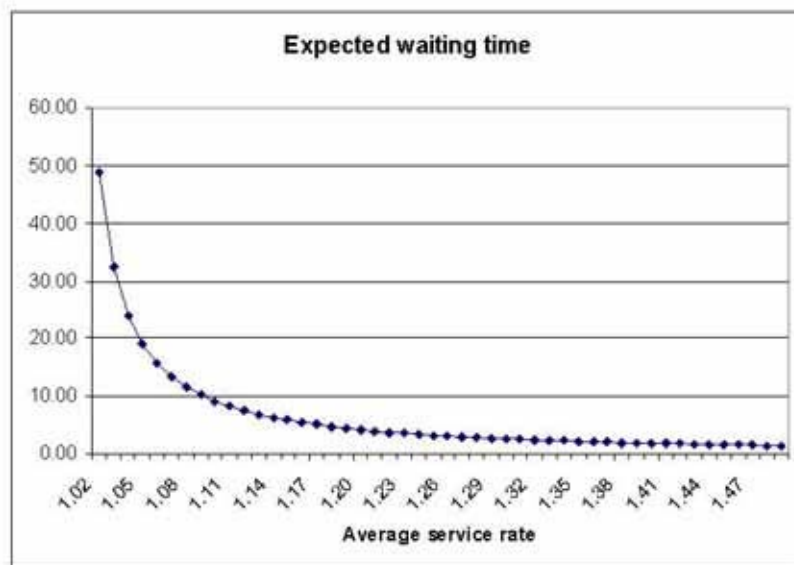


Figure 2: Standardised waiting times for a simple queue

“When the service rate is close to the arrival rate but starts to fall, there is a very rapid decrease in the expected waiting time relative to a small increase in the service rate. As we move to the right of the curve it gets much flatter, which implies that the relative improvement in waiting times is much less once the traffic intensity is at a lower value.... The simple queuing model makes it clear that there are diminishing returns on subsequent investments required to increase the processing rate; that is, investments in increased capacity.”

There are two options: Stop people joining the queue or speed up the service. The latter is very complex and expensive as there are queues within queues (for x-ray, theatre time and so on) and other random factors such as patients not arriving smoothly, or joining internal queues from other directions (via casualty) all in a more chaotic manner. When running a system at full capacity the slightest glitch rapidly increases waiting times.

The NHS is once again going to find it almost impossible to keep pushing down waiting lists without even larger increases in activity and costs using the current providers and their costs

So the suggestion is that we should stop people joining the queue by referral management systems (CAS, CATS). ***Evidence that the centres are effective is lacking, and costs are difficult to predict. Assessment of referrals has the potential to introduce error and delay, and patient flow may be influenced by managers***² (BMJ)

Referral Management Centres may reduce costs in the first year, for they will introduce a new queue. Triage systems become the wait for the wait. This time the queue is now in primary care and is not counted anymore. Government Targets only count HOSPITAL waiting times. The delay in treating patients reduces costs in year one. CAS and CATS are a no-brainer double whammy for PCTs. They would seem to reduce costs without impact on any Government measured waiting times!

One of the few interesting things the Modernisation Board produced is the “Big Referral Wizard”³ document which is now housed on the NATPACT web site. Here are a few quotes:

“Triage is the process by which the service assesses the patient's characteristics and assigns priority to their order in the queue. It is essential to any queuing system that does not employ a FIFO discipline. Triage should be a formal part of the queuing system if FIFO does not operate, even though it adds some delay. However, all too often it is ad hoc. A common issue is that patients may be over prioritised so that there are more and more urgent cases, which inevitably leads to longer and longer waits for the routine cases.”

“It is thus vital that the triage process is regularly evaluated to determine its accuracy. As the length of queues reduces, the usefulness of triage diminishes and a point is reached where triage adds little value. Indeed, triage consumes significant resources which could be used to provide the service rather than order it. Thus one should aim not only for the simplest form of triage but attempt to reduce the length of the queue so that it can be eliminated all together”

That outlines the problems of triage systems, and there is no reason to suspect that we would have any more success with triage systems, or “redirection” systems for referrals.

Referral statistics

The PCTs have produced referral data in various formats which seem to pick out particular practices for special mention because of their “high” referral rates. Small practices are more likely to be singled on charts while no mention is made of the aberrations caused by low list size and low number of doctors. Larger practices will always be nearer “average” because of the averaging effect between different practitioners. Only one referral per month extra would appear to cause a huge jump in referrals per 1000 patients in a small practice. When the Dacorum Alliance of Small Practices’ referral rates are grouped together, referral rates become average for Dacorum.

We are counting private referral rates in Dacorum as they explain some of the variances. In the long term relying on private insurance is risky, as any downturn in the economy reduces private insurance. Furthermore as waiting times come down the main benefit of private insurance falls away... since 70% of private insurance is now corporate, not individually funded, there could be a cataclysmic decline in private insurance take-up in the next few years.⁴

Chance also plays a role in skewing raw referral statistics.

Referral Rates need simple statistic analysis: This is taken from the Demand Management Wizard document:

“To calculate how much variability is due to chance we have attached a table which shows the variation that would be expected to occur by chance. The following example illustrates how the table works.

Dr Brown and her partners have 6,000 patients, of whom they referred 28 to neurology in one year. Their referral rate was thus $28/6,000 = 4.7$ referrals per 1,000 patients pa. The HA area have 1,400 referrals for a population of 500,000 per year The HA referral rate was thus $1,400/500,000 = 2.8$ referrals per 1,000 patients per year

To calculate the confidence intervals for Dr Brown's practice look down the left hand side of Table 1 until you reach 3 (closest to 2.8), and across until you reach 6,000 (practice list size).

This will give a figure of 2. Thus the confidence intervals for a Practice the size of Dr Brown's are +/- 2

Dr Brown's range is thus $2.8 +/- 2 = 0.8$ to 4.8 referrals per 1,000 patients pa

Thus Dr. Brown's Practice at 4.7 comes within this range and should not be regarded as an outlier, even though their rate is well above the HA average.

Source: Roland and Coulter

pts/ year	Practice list size									
	250	500	1,000	2,000	4,000	6,000	8,000	10,000	12,000	16,000
1	4	3	2	2	1	1	1	1	1	1
3	6	4	3	3	2	2	1	1	1	1
5	9	5	4	3	3	2	2	1	1	1
10	14	9	7	5	3	3	2	2	2	2
15	17	12	8	6	4	3	3	3	3	2
20	19	14	9	6	4	4	3	3	3	2
25	21	16	10	7	5	4	4	3	3	2
30	23	17	11	8	5	4	4	3	3	3
40	26	19	12	9	6	5	4	4	4	3
50	29	21	14	10	7	6	5	4	4	3
60	31	23	15	11	8	7	5	5	4	4
70	33	25	16	12	8	7	6	5	5	4
80	37	26	18	13	9	7	6	6	5	4
90	39	27	19	13	9	8	7	6	5	5
100	41	29	20	14	10	8	7	6	6	5
120	44	30	21	15	11	9	8	7	6	5
140	48	33	23	17	12	10	8	7	7	6
160	50	37	25	18	13	10	9	8	7	6
180	53	39	26	19	13	11	9	8	8	7
200	56	41	28	20	14	11	10	9	8	7
220	58	43	29	21	15	12	10	9	8	7
240	61	44	30	22	15	12	11	10	9	8
270	65	47	32	23	16	13	11	10	9	8
300	68	49	34	24	17	14	12	11	10	9
400	80	56	41	28	20	17	14	12	11	10
500	88	62	44	30	22	18	15	13	12	12
600	104	68	49	34	24	20	17	15	14	13
800	112	80	56	41	28	24	20	18	17	14
1,000	124	88	62	44	30	26	22	20	18	15

When we apply this chart to my practice's own referral statistics from the HIDAS tables I cannot find any areas of particular concern. Perhaps the PCT could add a column in the HIDAS tables to highlight areas that we should really concentrate upon, after such variance calculations.

“Below are rates which were derived from the average referral rates of a group of East Anglian doctors to a number of specialties. The referral rates have less than a 5% chance of being outside the expected range, as the range is analogous to a 95% confidence limit. It can be seen from the table that the expected range is very wide indeed. It becomes wider as the number of doctors and the time period studied decrease. Thus it is important to understand from the outset that variation is often to be expected.

GP referral rates	Average No Of Referrals	Expected Range
Rheumatology 1GP 6 months	5	0-10
Rheumatology 5GP 1 year	50	36-64
Gynaecology 1GP 6 months	14	6-21
Gynaecology 5GP 1 year	137	114-160
Gen Surgery 1GP 6 months	21	11-30
Gen Surgery 5GP 1 year	209	180-238
All Specialities 1GP 6 months	165	139-191
All Specialities 5GP 1 year	1650	1577-1723

Source: Roland and Coulter

Demographic factors

There is now an increasing body of evidence that increased referral rates do partly correlate with factors such as a social class V member as head of the household, and the receipt of benefits such as disability allowance. There is also a correlation between the provision of central heating in a house and the emergency referral rates for asthma. The influence of these factors was detailed in the BMJ 1999 319:98-103, ["Explaining variation in hospital admission rates between general practices"](#), Reid, Cook & Majeed.

Other softer factors may also affect the variability in rates:

- *Numbers of private referrals*
- *A special interest and knowledge leading to higher referrals*
- *Low tolerance of uncertainty by individual clinicians*

Reflecting on referrals should not be seen as an exercise in reducing referrals (although that might be one outcome). It should be aimed at improving the appropriateness and quality of referrals. In doing so it will lead to reflection on the clinical process and clinical medicine, and can be used to build the professional networks that defend against isolation and complacency”

"Shifting the mean" in referrals

Whilst it is important to identify the "referral outliers", these will in reality make up a very small percentage of the total referrals. To have the greatest impact, PCOs must alter the referral thresholds of the majority and not the minority of practitioners. This will lead to a "shifting of the mean":

Low referral rates might be due to over-confidence and lack of awareness of the opportunities for secondary care management. Although we know that low referrers are not late referrers for cancer, there is ample evidence that some groups have reduced access to procedures compared with their needs. However, a low referral rate may be due to known factors that offer a good explanation. Even if the explanation is acceptable, doctors should reflect on their referral practices, none of which is likely to be perfect. When there is no good explanation reflection can enhance understanding of differences"

A Referral Management System will add to the delay and offer a short term solution by creating waiting lists within Primary Care. It will tackle the small number of referral outliers but that is all. Meanwhile it:

- Irritates everyone, including patients, and adds an extra layer of bureaucracy.
- Will increase referral rates overall as you introduce a new service (CAS/CATS) while it delays referrals to hospital.
- Could be by-passed by Choose and Book although PCTs are removing Choice from G.P. systems, whilst offering "Choice" by G.P.s directly is a National Target.
- Destructive of Consultant/GP relationships.
- The good prescribing, low prescribing costs and high QOF scores of Dacorum G.P.s would suggest our referral patterns are equally good. Indeed the referral tool HIDAS web site confirms that we are below "average" referral rates.
- PBR prices assume there are some low intensity (i.e. duff) referrals, which may partly explain current pressure on the trust: our referrals are already of too high a quality, and hence costly for the Trust to diagnose and treat. The PCT seeks a reverse of cherry picking leaving the Provider Trusts with the most expensive patients to treat at tariff.
- Lack of Evidence: Health Service Journal reports 22nd June 2006 that United Healthcare in the USA abandoned these demand management systems. Dr Richard Smith of United Health Europe, said they stopped because they were ineffective. These systems changed very few decisions and irritated patients and doctors. Evidence was lacking on demand management centres and systems focused on reviewing G.P.s' decisions.

Increasing Referral rates caused by CAS and CATS

These systems will have the paradoxical effect of increasing referral rates. We have seen this before. The "triage" service of NHS Direct has not had the expected effect of reducing A&E attendances. It seems to us that NHS Direct has increased the referral rate to casualty.

Shifting of clinical and insurance RISK over to the PCT.⁵

Every day, with every patient, the G.P. takes the clinical risk and responsibility of not referring a patient to a consultant. Now G.P.s will be able to pass this risk over to the CAS/CATS. So when we have that moment of doubt in the consultation, we can reach for CAS/CATS, de-skilling ourselves further. The de-skilling of General Practitioners, the last bastion of the general physician, is a risk to the profession and to our patients. We are the only people left who can take a holistic view of our patients.

I am already aware of increasing referrals to a CAT: In my own practice I have referred some "rheumatic" patients to the MSK service, where I would have normally been far too embarrassed to send these patients to a consultant clinic. I wonder if, after one year, the exhausted MSK service refers these patients onto a consultant.

CAS/CATS is destructive of clinical relationships with consultants. It extends the "them and us" attitude. At least in fundholding we were able to buy consultant time in for teach-and-treat clinics, and engage them clinically from the start.

Dacorum G.P.s are good prescribers. Dacorum PCT drugs budget is well below the National Average and the prescribing is of good quality. Our QOF scores are high. With these high standards what evidence is there that we are such bad referrers? Of course there are some pretty duff referrals made by all of us, and they stick out like sore thumbs, but the numbers will not be massive. The PBR tariff was set by assuming that not all referrals would be complex and require investigations and procedures. One of the pressures on West Herts Trust may be because already our referrals are of too high a standard, and that each one requires a lot of work by the Trust costing them much more than the PBR tariff.

Alternative to CAS and CATS

Why consider referral management? To cut COSTS (good thing). We hear talk that these services are to offer "improved patient pathways" by adding another step in the referral process.

What is needed for the health economy is to be able to deliver more at reduced cost.

General Practice, private organisations whose income depends on keeping costs down, are the ideal vehicles to drive such reform. Use what we have now; we do not need to create new organisational structures.

Alternatives to creating Referral Management structures:

- 1 PCT produce data that takes into account statistical variance.
- 2 Fund G.P.s to audit their referral as if each referral was a critical incident (why, how and better ways, and what learnt). This process could take place within each surgery and can start now, along with improved patient pathway development.
- 3 Allow G.P.s to be explicit and delay referrals towards year end (as we used to do in the Fundholding era in some specialties).
- 4 Confirm that G.P.s can setup provider organisations themselves, without the need to tender (providing that they come in at below current tariff prices). G.P.s would also need 3-5 year guarantees that the rules would not change. At the moment G.P.s and PBC have not delivered much as the risks in providing services are too high. A stable regime with fixed rules is needed for G.P.s or others to invest, and to be able to negotiate contracts with consultant providers or NHS Trusts for services.
- 5 Reduce Hospital costs: Outpatients and Diagnostics as a primary care service, run and managed by primary care.

¹ Nosokinetics web site: patient flows: <http://www.iol.ie/%7Erjtechne/millard/nsk65/pidd65.htm>

² BMJ Article on Referral Management: <http://press.psprings.co.uk/bmj/april/ac844.pdf>

³ Natpact Website with Big Wizard: <http://tinyurl.com/yhys7z>

⁴ Netcare Statistics Presented at King's Fund November 2006: <http://www.netcareuk.com/netcare/?ref=42&year=>

⁵ LMC Guidance of Referral Management: <http://www.lmc.org.uk/guidance/ReferralmanagementFAQs0606.doc>