

Greater Glasgow NHS Board

Board Meeting

19 November 2002

Board Paper No. 02/78

Director of Public Health

Geographical and socio-economic variations in referrals for DEXA scanning

Recommendation: Members are asked to note the following paper:

1 Introduction

Osteoporosis is a condition in which calcium is lost from bone leading to thinning and increased risk of fracture. It is commoner in women than in men. There is no evidence that the risk of osteoporosis varies with socioeconomic status. Bone densitometry using axial DEXA scanning can identify individuals at increased risk who may benefit from bisphosphonate treatment and lifestyle management. In 1998, a GP Direct Access Densitometry Service (DADS) was established in Greater Glasgow. DADS is a collaborative venture between GPs and all GGHB DEXA providers. All four hospitals use a uniform referral form which the GP completes and sends to the nearest facility. It has been agreed that patients meeting the following criteria are at higher risk of having osteoporosis and should have a DEXA scan.

- >50 years with a current or recent (<5 year) fracture
- history of chronic oral corticosteroid use
- early (<45 years) menopause
- perimenopausal woman with at least two of the following
 - low BMI
 - smokes >5/day
 - alcohol intake > 35 units/week
 - history of maternal hip fracture
 - secondary amenorrhoea (not pregnancy associated)
- radiological evidence of vertebral bone loss plus one of the above

Data on every patient were recorded on a database written specifically for this purpose which is used in each of the centres (GISMO: Glasgow Integrated System for Management of Osteoporosis).

2 Referral rates by practice and LHCC

Between 1998 and 2001, 3,985 patients were referred to DADS. Of the 216 practices in Glasgow, 190 (88%) referred at least one patient to DADS. Among those that referred patients there were wide variations in referral rates. Forty three percent of practices referred less than ten

patients but some referred more than 100 (Figure). Referral rates by LHCC ranged from 10.4/10,000 to 76.7/10,000 (Table 1).

3 Referral rates by socioeconomic status

There was a trend in referral rates according to socioeconomic status. Referral rates fell steadily from 72.1 / 10,000 for residents in deprec 1 (most affluent) areas to 27.7 / 10,000 for residents in deprec 7 (most deprived) areas. This trend was not simply due to age differences as the trend was still apparent when the analyses were repeated by age sub-groups.

Figure. Number of patients referred to DADS by practice

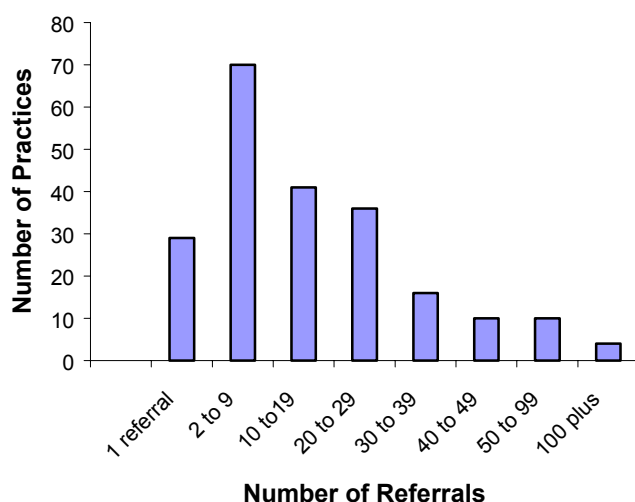


Table 1. DADS referral rates by LHCC

LHCC	Number of referrals	Population	Referral Rate (/10,000)
Bridgeton & Environs	32	30,659	10.4
Dennistoun	73	34,380	21.2
Eastern Glasgow	423	114,054	37.1
Maryhill/Woodside	174	63,263	27.5
North Glasgow	236	53,036	44.5
Strathkelvin	397	67,737	58.6
Camglen	232	54,141	42.9
Eastwood	450	58,649	76.7
Greater Shawlands	133	67,264	19.8
South East Glasgow	295	89,984	32.8
South West Glasgow	399	92,448	43.2
Anniesland/Bearsden	320	49,612	64.5
Clydebank	206	49,481	41.6
Drumchapel	97	18,577	52.2
The Riverside Co-op	194	50,530	38.4
Westone	269	49,727	54.1

Table 2. Referral rates by deprivation category

Deprivation category	1	2	3	4	5	6	7
No. referrals	651	413	331	553	419	719	760
Population	90,348	70,988	69,144	129,069	77,442	210,198	274,733
Referral rate (/10,000)	72.1	58.2	47.9	42.8	54.1	34.2	27.7

1 = most affluent, 7 = most deprived

4 Conclusions

- The vast majority of practices have referred at least one patient to DADS since its establishment
- However referral rates vary considerably between LHCCs and individual practices
- Referral rates are generally higher in the South than North-East
- The variation by practice seem to due, at least in part, to variations by socioeconomic status
- Residents in the most affluent areas are more than twice as likely to be referred This may reflect increased awareness of osteoporosis amongst affluent women.
- The variation in referrals by socioeconomic status cannot be attributed to variations in the prevalence of osteoporosis

5 Action taken

- All LHCCs have had their data fed back to them and are considering the implications of the data
- Investigations are proceeding into whether the same socioeconomic gradient is apparent in patients referred for DEXA following a fracture
- This work is part of the remit of the Osteoporosis Working Group which also is working on strategies to minimise the risk of falls both in the community and in institutional residents