Dr Foster's case notes

Hospital indicators of poor sexual health

The recent UK white paper on public health^{w1} included sexual health as one of the main targets for improvement. Poor sexual health is generally measured in terms of acute infections and unplanned pregnancies, with a focus within the UK on incident infections, and is obtained from returns from genitourinary medicine clinics. With the exception of HIV infection and some cases of hepatitis B, most people with a sexually transmitted infection are not admitted to hospital. However, many of the longer term sequelae (particularly, asymptomatic infections in women and untreated syphilis) may lead to hospital admission. Might these admissions be used as a proxy measure for trends in acute infections? We looked at hospital admissions data for congenital and acquired syphilis, pelvic inflammatory disease, and ectopic pregnancy.

The bottom line

- Each year between 1996-7 and 2002-3 there were an average of 17 814 admissions for pelvic inflammatory disease and 8500 for ectopic pregnancy
- Admissions for both conditions declined over time, but this may be explained by changes in diagnostic methods and management
- Syphilis continues to be a cause of long term morbidity, with 140 cases each year. Few cases of congenital syphilis were recorded in children under 10

We looked at all admissions from 1996-7 to 2002-3 with a primary diagnosis of congenital syphilis (ICD-10 code A50), syphilis (A51 to A53), pelvic inflammatory disease (N70 to N740), or ectopic pregnancy (O00). Admission ratios were indirectly standardised by age and sex against the 1996-7 national population of England. Admission ratios were also calculated by primary care trust for 2000-1 to 2002-3 and were indirectly standardised to the national population. Admission ratios for ectopic pregnancy were standardised by age and conception rate.

Standardised admission ratios for pelvic inflammatory disease, England, 1996-7 to 2002-3

Pelvic inflammatory disease continues to be a major cause of morbidity, with 15 655 admissions with a primary diagnosis of pelvic inflammatory disease in 2002-3. Over the seven year period, standardised admission ratios for pelvic inflammatory disease declined by 19% (figure). It is unclear whether there has been a true decline in the incidence of pelvic inflammatory disease. It is likely that more women are being treated as outpatients, but the decline may also reflect better clinical management in primary care.

Ectopic pregnancy is another possible consequence of gonococcal or chlamydial infection, although these are not the only risk factors. In 2002, 7933 women aged 15-44 were admitted with a primary diagnosis of ectopic pregnancy. Standardised admission ratios for ectopic pregnancy declined by 8% between 1996 and 2001 and then stayed steady in 2002. This decline may not reflect a decline in the incidence since some tubal pregnancies can now be managed in the outpatient clinic.^{w2}

Over the seven years studied, only 45 admissions had a primary diagnosis of congenital syphilis, with only 14 of 303 primary care trusts reporting admissions. Syphilis continues to be a cause of long term morbidity, with 140 patients admitted each year; the most common primary diagnosis (in 45% of syphilis admissions) was symptomatic neurosyphilis (ICD-10 code A521). The median age of patients admitted

with syphilis was 59 years. Few cases of congenital syphilis were recorded in children under 10. Owing to the current epidemic of syphilis, both infectious and congenital syphilis are likely to rise in decades to come.^{w3} Hospital admission data will not necessarily detect the recent rise of infectious syphilis^{w4} because only a small proportion are admitted, but there is a consistent trend: standardised admission ratios for infectious syphilis declined between 1996 and 2000 then rose again by 2002.

The basic figures

- There were 15 655 admissions with a primary diagnosis of pelvic inflammatory disease in 2002 (crude admission rate of 64 per 100 000)
- From 1996-7 to 2002-3 standardised admission ratios for pelvic inflammatory disease declined by 19%, from 100 (95% CI 98.6 to 101.4) to 81.3 (80.1 to 82.6)
- Variation between primary care trusts ranged from 30.2 (21.0 to 42.3) in Carlisle and District PCT to 268.0 (246.8 to 290.5) in Oldham PCT
- The crude admission rate for ectopic pregnancy was 84/100 000 women aged 15-45 in 1996 and 77/100 000 in 2002
- Over the seven years studied there were only 45 admissions with a primary diagnosis of congenital syphilis, with only 15 in children under the age of 10.

This month's Dr Foster's case notes were compiled by Helen Ward, Jackie Cassell, Susan Williams, and Paul Aylin at the Dr Foster Unit at Imperial College. Dr Foster is an independent research and publishing organisation created to examine measures of clinical performance.

Unabridged version with methodology, additional figures, additional data, and references is on bmj.com