Context

This data item examines hospital admissions for knee arthroscopy for people 55 years and over. Hospital admission data are sourced from the Admitted Patient Care National Minimum Data Set. This includes both public and private hospitals. Rates are described as the number of admissions per 100,000 people. Repeat admissions for one person and transfers to other hospitals are both counted as separate admissions.

Knee arthroscopy is a surgical technique which is used to treat a limited number of pathologies in the knee joint. A fibre optic telescope incorporating a camera is introduced through a small incision. Instruments can be inserted through other small incisions to assist with some surgical interventions inside the knee joint.

Systematic reviews of randomised placebo-controlled trials have found arthroscopy for degenerative knee disease (particularly osteoarthritis) delivers an inconsequential benefit.¹ According to recent guidelines, arthroscopic debridement does not help manage knee osteoarthritis.²

Clinicians should consider the options for managing knee pain only after comprehensive assessment and clinical examination. Plain X-rays with standing films are often an appropriate investigation method. Magnetic resonance imaging (MRI) is often unnecessary. Guidelines exist for general practitioners on MRI for acute knee injury; however, they are not helpful for patients with ongoing degenerative knee pain. MRI for ongoing knee pain can lead to unwarranted expense, over-investigation and unnecessary treatment.³

Osteoarthritic knee pain management should begin with a comprehensive discussion between the clinician and patient about weight loss, exercise, physiotherapy and pharmaceuticals for pain relief. Exercise therapy has been shown to relieve osteoarthritic knee pain with a moderate to larger effect than knee arthroscopy.¹ Despite this, the use of arthroscopic knee surgery has not decreased in recent years.⁴

Consumer understanding of the diagnosis and treatment options for osteoarthritic knee pain varies. Cartilage tears in the knee are common in the normal ageing process.⁵ A number of international patient decision aids are available on treatment options for osteoarthritis, but they are yet to be validated in Australian clinical settings.

Health services are beginning to prioritise use of patient-reported outcome measures, but in relation to knee arthroscopy, these are not coordinated or contained in clinical registries around Australia. Emerging evidence also suggests that people who attend an orthopaedic surgery triage clinic, run by advanced scope physiotherapists, are satisfied with good health outcomes with these clinics.^{6,7,8}

The Commission has formed an expert advisory group on knee pain that is identifying strategies to detect and address unwarranted variation in the management of knee pain.

Magnitude of variation

In 2012–13, there were 33,682 knee arthroscopy admissions to hospital, representing 560 admissions per 100,000 people aged 55 years and over (the Australian rate).

The number of knee arthroscopy admissions to hospital across 304* local areas (SA3s) ranged from 185 to 1,319 per 100,000 people aged 55 years and over. The number of admissions was **7.1 times higher** in the area with the highest rate compared to the area with the lowest rate. The average number of admissions varied across states and territories, from 264 per 100,000 people aged 55 years and over in the Australian Capital Territory, to 980 in South Australia.

After excluding the highest and lowest results, the knee arthroscopy hospital admission rate across the 290 remaining local areas was **4.2 times higher** in one local area compared to another.

Hospital admission rates for knee arthroscopy tended to be higher in inner and outer regional areas than in major cities. There was a trend towards rates rising with increasing socioeconomic status in major cities and inner regional areas. However, in outer regional and remote areas, this socioeconomic correlation was reversed.

Interpretation

Potential reasons for the variation include differences in:

- clinicians adopting evidence-based practice in clinical decision making
- rates of private health insurance cover and the accessibility of private hospitals – about 80 per cent of admissions for knee arthroscopies are in the private sector¹
- the occurrence of risk factors for knee problems, including obesity and occupational injuries⁹
- access to imaging and alternatives to surgery such as physiotherapy for people in remote locations
- rates of repeat procedures for one person, which are counted in the data.

To explore this variation, further analysis could focus on:

- investigating repeat knee arthroscopies, rates of MRI that progress to knee arthroscopy and rates of knee arthroscopy that progress to knee replacements
- the influence of the private and public sectors on rates of knee arthroscopy.

^{*}There are 333 SA3s. For this item, data were suppressed for 29 SA3s. This is because of confidentiality requirements given the small numbers of admissions in these areas.



Figure 29: Number of knee arthroscopy admissions to hospital per 100,000 people aged 55 years and over, age standardised, by local area, 2012–13

Notes:

Rates are standardised based on the age structure of the Australian population in 2001.

Maryborough Qld

State/territory and national rates are based on the total number of admissions and people in the geographic area.

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The term local area refers to an ABS standard geographic region known as a Statistical Area Level 3 (SA3).

Includes all public hospitals, private hospitals and day hospital facilities.

For more technical information please refer to the Technical Supplement.

Sources: National Health Performance Authority analysis of Admitted Patient Care National Minimum Data Set 2012–13 (data supplied 09/04/2014) and Australian Bureau of Statistics Estimated Resident Population 30 June 2013.

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Figure 30: Number of knee arthroscopy admissions to hospital per 100,000 people aged 55 years and over, age standardised, by local area, 2012–13



Sources: National Health Performance Authority analysis of Admitted Patient Care National Minimum Data Set 2012–13 (data supplied 09/04/2014) and Australian Bureau of Statistics Estimated Resident Population 30 June 2013.

The number of knee arthroscopy admissions to hospital across 304 local areas (SA3s) ranged from 185 to 1,319 per 100,000 people aged 55 years and over. The number of admissions was **7.1 times higher** in the area with the highest rate compared to the area with the lowest rate.



Sources: National Health Performance Authority analysis of Admitted Patient Care National Minimum Data Set 2012–13 (data supplied 09/04/2014) and Australian Bureau of Statistics Estimated Resident Population 30 June 2013.

Figure 31: Number of knee arthroscopy admissions to hospital per 100,000 people aged 55 years and over, age standardised, by local area, state and territory, 2012–13



Notes:

Rates are standardised based on the age structure of the Australian population in 2001.

State/territory and national rates are based on the total number of admissions and people in the geographic area.

Sources: National Health Performance Authority analysis of Admitted Patient Care National Minimum Data Set 2012–13 (data supplied 09/04/2014) and Australian Bureau of Statistics Estimated Resident Population 30 June 2013.

Figure 32: Number of knee arthroscopy admissions to hospital per 100,000 people aged 55 years and over, age standardised, by local area, remoteness and socioeconomic status (SES), 2012–13



Notes:

Rates are standardised based on the age structure of the Australian population in 2001.

The national rate is based on the total number of admissions and people in Australia.

Average rates are based on the total number of admissions and people in the local areas within each group.

Sources: National Health Performance Authority analysis of Admitted Patient Care National Minimum Data Set 2012–13 (data supplied 09/04/2014) and Australian Bureau of Statistics Estimated Resident Population 30 June 2013.

Resources

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