

Arthroscopic knee washout, with or without debridement, for the treatment of osteoarthritis

1 Guidance

- 1.1 Evidence on the safety and efficacy of arthroscopic knee washout with debridement for the treatment of osteoarthritis is adequate to support the use of this procedure provided that normal arrangements are in place for consent, audit and clinical governance.
- 1.2 Current evidence suggests that arthroscopic knee washout alone should not be used as a treatment for osteoarthritis because it cannot demonstrate clinically useful benefit in the short or long term.

2 The procedure

2.1 Indications

- 2.1.1 Arthroscopic knee washout, with or without debridement, is used to treat osteoarthritis of the knee. Osteoarthritis of the knee is the result of progressive degeneration of the cartilage of the joint surface.
- 2.1.2 Treatment options depend on the severity of the osteoarthritis. The condition is usually chronic, and patients may have several treatment strategies applied at different stages. Conservative treatments include medication to relieve pain and inflammation, and physiotherapy. If there is a knee-joint effusion, fluid around the knee may be aspirated with a needle (arthrocentesis). Corticosteroids or hyaluronic acid are sometimes injected into the knee joint. If these treatments are ineffective, a knee replacement operation may be necessary.

2.2 Outline of the procedure

- 2.2.1 Arthroscopic washout (lavage) of the knee is usually performed under general anaesthesia. A fiberoptic telescope (arthroscope) attached to a video camera is inserted through a small incision and saline is introduced via an arthroscopic cannula to wash out the joint. Washout expels any loose debris through the cannula. Debridement involves using instruments to remove damaged cartilage or bone, and this is often performed at the same time as washout.
- 2.2.2 It is difficult to predict before arthroscopic washout which patients will have lesions suitable for debridement and there is very little evidence to guide selection.

2.3 Efficacy

- 2.3.1 One randomised controlled trial (RCT) of 180 patients compared arthroscopic lavage alone, arthroscopic debridement and a sham procedure (simulated arthroscopy) with each other. The trial showed no significant differences in terms of pain relief or knee function at 2 years. A second RCT comparing debridement with washout alone reported that 80% (32/40) of patients in the debridement group were pain-free at 1 year, compared with 14% (5/36) of patients in the washout group ($p = 0.05$). A third RCT of 90 patients reported that pain relief at 1 year was significantly better in patients treated with 3-litre washout than in those treated with 0.25-litre washout ($p = 0.02$). However, there was no

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This guidance is written in the following context

This guidance represents the view of the Institute, which was arrived at after careful consideration of the available evidence. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. This guidance does not, however, override the individual responsibility of healthcare professionals to make appropriate decisions in the circumstances of the individual patient, in consultation with the patient and/or guardian or carer. Interventional procedures guidance is for healthcare professionals and people using the NHS in England, Wales, Scotland and Northern Ireland.

This guidance is endorsed by NHS QIS for implementation by NHSScotland.

significant difference between the groups in terms of joint stiffness or function. An RCT of 32 patients found no significant difference between arthroscopic and closed-needle washout in terms of clinical or functional outcomes at 12 months. Another RCT of 38 patients comparing hyaluronic acid injections with arthroscopic washout reported no significant differences in pain or function at 1 year.

- 2.3.2 In the following three case series, patients were treated with washout with the intention of carrying out debridement. In one case series of 121 patients, 10% (12/121) required repeat arthroscopy and 12% (15/121) required knee replacement after a follow-up of 4–6 years. In another case series, 18% (18/100) of knees required further surgery after 5 years' follow-up (4 osteotomies, 3 unicondylar arthroplasties and 11 total knee replacements). A third case series reported that 23% (47/204) of knees required further surgery, which included 25 joint arthroplasties, after a mean follow-up of 7.4 years. For more details, refer to the 'Sources of evidence' section.
- 2.3.3 The Specialist Advisers stated that there is uncertainty about the efficacy of this procedure. They noted that patient selection is important: for example, patients with early osteoarthritic changes and those with large effusions are among those most likely to benefit. They listed the key efficacy outcomes as relief of pain and reduction of mechanical symptoms.

2.4 Safety

- 2.4.1 Few complications were reported in the studies. In one case series of 204 patients, haemarthrosis requiring aspiration occurred after 2% (4/204) of procedures and there was one case of deep venous thrombosis. For more details, refer to the 'Sources of evidence' section.
- 2.4.2 The Specialist Advisers did not express any major concerns about safety. They stated that theoretical adverse events include a small risk of infection and of venous thromboembolism.

2.5 Other comments

- 2.5.1 The use of this procedure in the treatment of rheumatoid arthritis was not considered.
- 2.5.2 It was noted that the microfracture technique may be used as an adjunct to this procedure but evidence relating to this was not considered.

3 Further information

- 3.1 The Institute has published interventional procedures guidance on mini-incision surgery for total knee replacement (www.nice.org.uk/IPG117) and is developing a clinical guideline on osteoarthritis (see www.nice.org.uk for more details).

Andrew Dillon
Chief Executive
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Information for patients

NICE has produced information describing its guidance on this procedure for patients and their carers ('Understanding NICE guidance'). It explains the nature of the procedure and the decision made, and has been written with patient consent in mind. This information is available from www.nice.org.uk/IPG230publicinfo

Sources of evidence

The evidence considered by the Interventional Procedures Advisory Committee is described in the following document.

'Interventional procedure overview of arthroscopic knee washout, with or without debridement, for the treatment of osteoarthritis', September 2006

Available from: www.nice.org.uk/ip366overview

Ordering information

Copies of this guidance can be obtained from the NHS Response Line by telephoning 0870 1555 455 and quoting reference number N1318. 'Understanding NICE guidance' can be obtained by quoting reference number N1319.

The distribution list for this guidance is available at www.nice.org.uk/IPG230distributionlist

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Interventional procedures guidance makes recommendations on the safety and efficacy of a procedure. The guidance does not cover whether or not the NHS should fund a procedure. Decisions about funding are taken by local NHS bodies (primary care trusts and hospital trusts) after considering the clinical effectiveness of the procedure and whether it represents value for money for the NHS.

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