A significant proportion of knee surgery focuses on soft-tissue problems around the joint. In this specialist section we focus on three important clinical situations; arthroscopic meniscectomy, patello-femoral dislocation and anterior cruciate ligament repair. Each area provides challenges in; understanding the natural history of the pathology, interpretation of imaging, defining indications for surgery, improving the technical delivery of surgery and the measurement of outcome after treatment. The British Association for Surgery of the Knee (BASK), working with the British Orthopaedic Association, has recognised the importance of developing evidence-based care supported by clinical treatment guidelines. In the three articles that follow we can see the importance of evidence to guide the use of surgical treatments that are firmly established, have been more recently developed and are in development.

**Professor Andrew Price**
**Immediate Past-President of BASK**

# Arthroscopic meniscectomy for isolated meniscal tears – *changing practice*

Andrew Price

The use of arthroscopic meniscectomy continues to cause major debate. A number of recent publications have challenged its efficacy and called for an almost complete cessation to its use. Others have argued for a more targeted approach, as outlined in the Clinical Guidelines published by the British Association for Surgery of the Knee (BASK)[1].

**Andrew Price** is a Consultant Knee Surgeon based at the Nuffield Orthopaedic Centre and a Professor of Orthopaedic Surgery at the University of Oxford. His clinical work covers all aspects of knee surgery and his research is based in NDORMS at the Botnar Centre, where he Leads the Knee Research Group. He is a past President of the British Association for Surgery of the Knee.

The development of these guidelines, whilst receiving criticism from some quarters, has been widely accepted in the UK as a step forward in delivering care for patients[2]. This article examines the issues that knee surgeons must consider before they recommend this treatment, summarising the present position and considers the way ahead.

The clinical reasoning for embarking on arthroscopic meniscectomy in centred on the premise that a meniscal tear is responsible for symptoms and that removal of the tissue will lead to a reduction of symptoms. When an individual has a bucket handle tear and a locked knee the situation is quite clear – either repair of the meniscus or resection will be beneficial and can be offered to patients. However, in other situations the link between tears and symptoms is less clear.

The BASK Clinical Guideline provides a decision-making pathway for addressing this issue. In developing the guideline, the BASK Meniscal Working Group considered the following clinical considerations[3]. Meniscal tears are common, particularly in people over the age of 40 years. They occur as part of the aging process within the knee and are very often associated with other degenerative processes within the joint's structure. Articular cartilage changes are seen, along with changes to tendons and ligaments around the knee. In many cases meniscal tears are symptomless. At the same time the onset of knee pain in middle age is common. In many cases it tends to be self-limiting and will settle with simple non-operative measures. During the management of knee pain, it is common practice to perform an MRI scan of the knee. This imaging modality has revolutionised our ability to identify structural change within the knee. >>

However, care is required in correlating the presence of a meniscal tear to the pain that patients endure. It seems in many cases the tear is part of a process within the knee commonly called 'degeneration' and the onset of pain is part of a wider clinical condition rather than specifically related to the meniscal tear. This explains why in the majority of cases symptoms settle without any surgical intervention. In some cases, symptoms persist for longer periods. It is important to exclude other less common diagnoses (e.g. patellar tendonitis, osteonecrosis, osteochondritis dissecans) and to assess if the patient has a more specific diagnosis of osteoarthritis. In these cases, focused treatment for the specific diagnosis is required and in established osteoarthritis there is good evidence that arthroscopic meniscectomy is of very limited benefit. This process of assessment identifies a subgroup of patients with residual symptoms who have a meniscal tear. Careful assessment of the pattern of meniscal tear is required at this stage to determine if there is unstable meniscal tissue lying in an abnormal position within the knee[4]. The clearest example of this pattern of tear is a displaced fragment of meniscal tissue that has flipped under the medial collateral ligament, and often is very tender to palpate. It is in these cases there is evidence that targeted arthroscopic meniscectomy can be a useful intervention.

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Historically arthroscopic meniscectomy was applied in a relatively non-specific manner to patients with knee pain and any form of meniscal tear. This approach was responsible for the dramatic increase in the number of patients receiving arthroscopic meniscectomy. There is now very compelling evidence to support a more cautious approach to offering meniscectomy to patients. Arthroscopic meniscectomy surgery offered to patients using a non-specific approach has been shown not to be beneficial[5]. In addition, arthroscopic surgery, including meniscectomy, in the presence of advanced osteoarthritis has also been shown to be ineffective. As an alternative treatment non-operative method have been shown to be are effective in both these clinical situations[6].

The emergence of clear evidence is already reducing the number of arthroscopic meniscectomy procedures performed in the UK, which is to be encouraged. However more recently some have argued that the current evidence available suggests that arthroscopic meniscectomy should have no real role in managing patients. Certainly, its use to treat all meniscal tears associated with knee pain cannot be supported. However, systematic review of the evidence suggests that in some groups the procedure can be beneficial, particularly in the case where symptoms persist and the MRI scan identifies a displaced meniscal tear that appears to correlates to clinical history and examination[7]. In these cases, at the point where non-operative treatment has failed to resolve symptoms, arthroscopic meniscectomy can be offered to patients as a potential alternative to further non-operative care. This is the basis for the BASK Clinical Guideline. This approach to encourage the use of targeted meniscectomy has been supported by surgeons within and outside the UK[8].

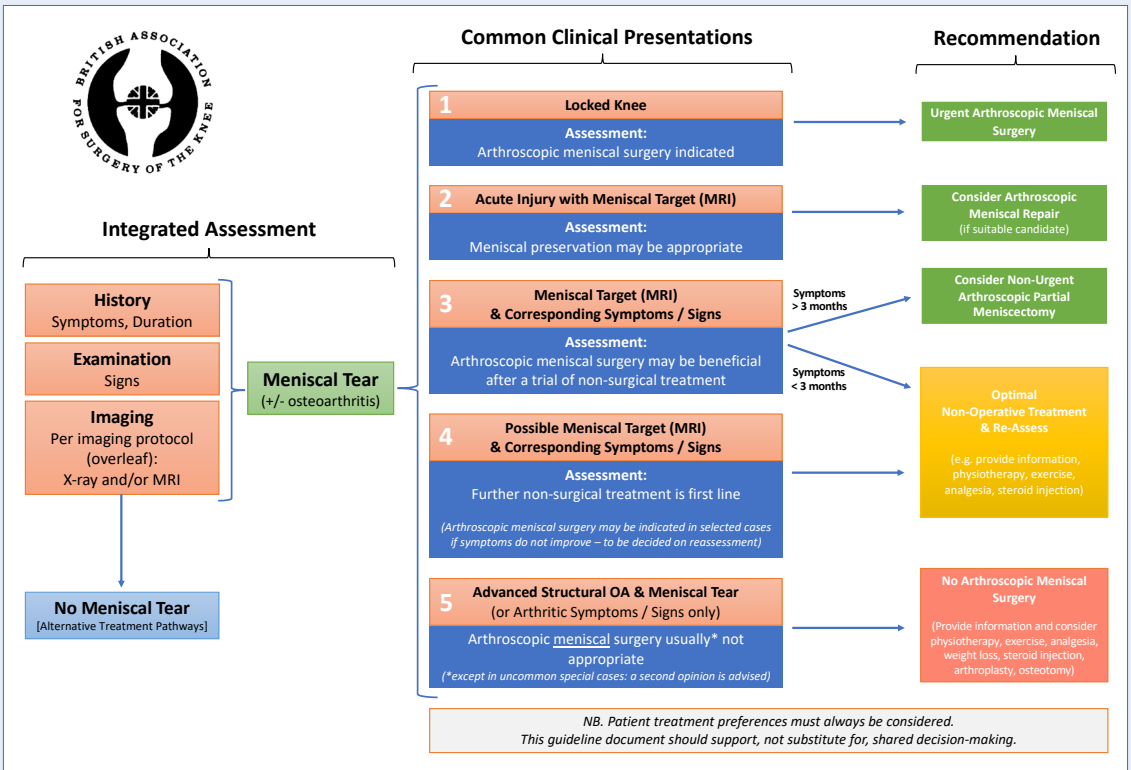
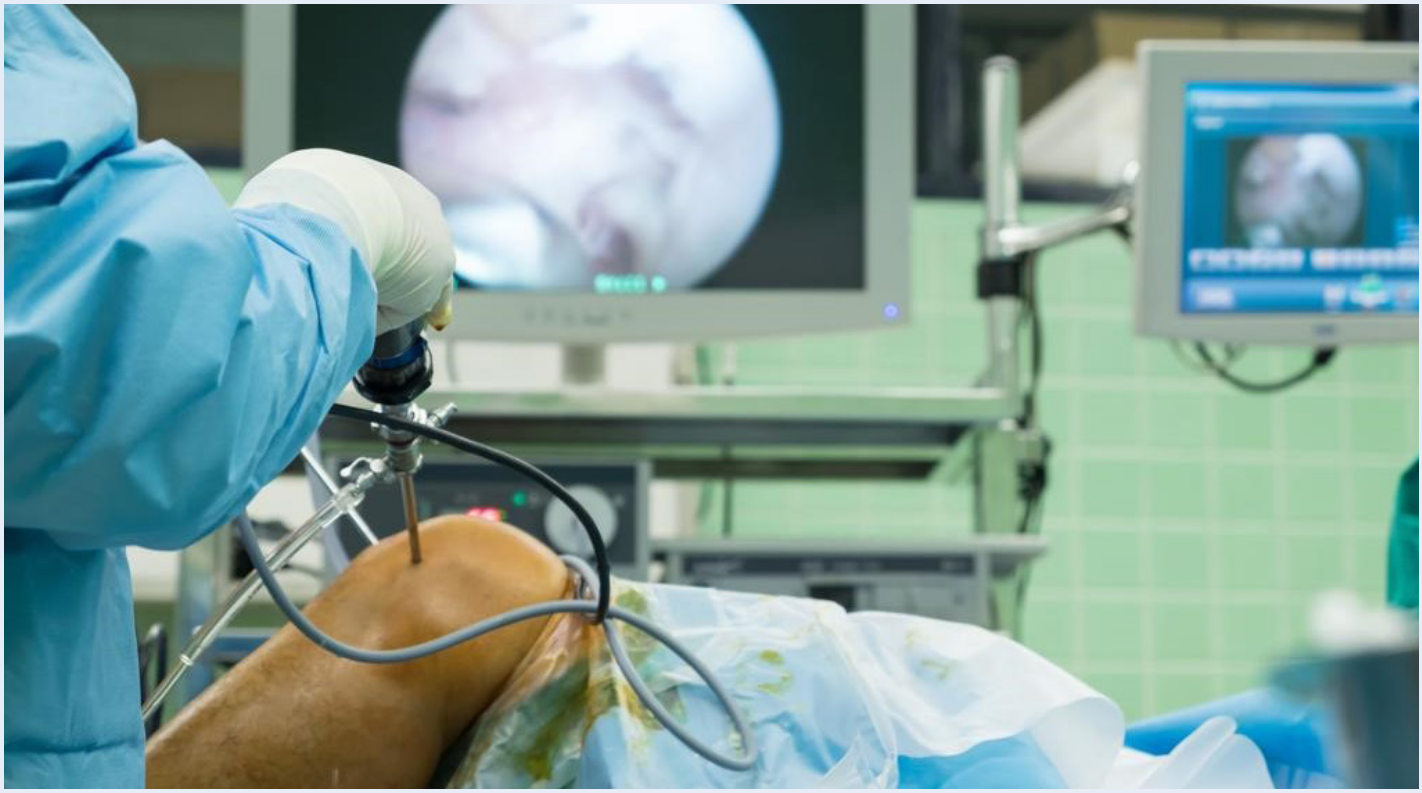



Figure 1: The British Association for Knee Surgery Meniscal Tear Management Guideline[1].

The targeted approach outlined by BASK guidelines is a real attempt to create a framework for treatment that protects patients from unnecessary surgery whilst allowing the sub-group of patients who may benefit continued access to care. The process should be supported by robust decision support so that patients can make an informed decision about surgical intervention as a treatment option for them. The Academy of Medical Royal Colleges, working in collaboration



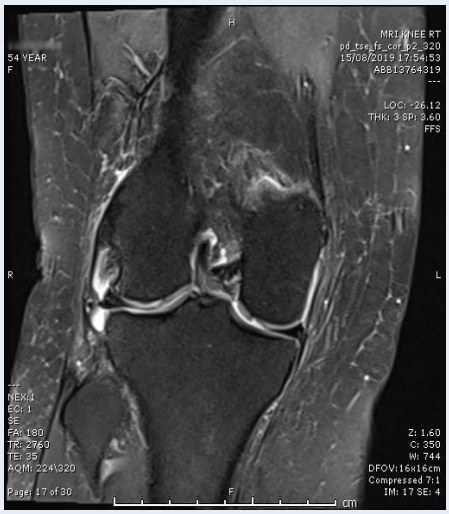
with NHS England and the National Institute for Heath and Care recently published Evidence Based Intervention clinal guidance for the use of arthroscopic menisectomy[9]. Their guidance supports the use of the BASK Clinical Guideline and the targeted approach captured within it. This approach should be adopted across the NHS by health care professionals involved in treating patients. In due course commissioning groups should insist that the guidance is adopted to drive change.

Despite the number of trials now performed there still remains uncertainty around the true efficacy of arthroscopic meniscectomy in certain groups and there is further need for further research. More specifically a trial using contemporary indications as laid out in the BASK clinical guidelines is a critical next step. However, it must be remembered that the findings from trials cannot represent all patient specific clinical presentations and this must be reflected when developing guidelines for care. Most importantly the BASK clinical guidelines must be applied in the framework of shared-decision making, where interventions are offered to patients in a balanced way outlining the benefits and risks of all treatment options available.

Our increasing focus on evidence medicine will raise the standards of care that we offer our patients. Evidence based clinical guidelines have a critical role in changing established practice protecting patients from unnecessary surgery and allowing access to the option of surgical care where benefit exists. The changes occurring in the current practice of arthroscopic meniscectomy are a good example of this process. ■

## References

References can be found online at www.boa.ac.uk/publications/JTO.




## Take home messages

- The BASK Clinical Guidelines for meniscal surgery provide an evidence-based approach for managing patients.
- These guidelines have been adopted by the Evidence Based Intervention program developed by The Academy of Medical Royal Colleges working with NHS England and the National Institute for Heath and Care.
- Widespread adoption of these evidence-based guidelines will reduce unnecessary surgery through targeting arthroscopic meniscectomy as a treatment option for those patients who may benefit.
- The guidelines should be used in the context of shared decision making, where patients are fully informed of their treatment options.