

Imaging for injured-worker patients with knee pain: An interview with Dr Kostas Panagiotopoulos

Dr Kostas Panagiotopoulos is an orthopaedic surgeon specializing in hip and knee reconstruction, sport medicine, and complex trauma, who sees many patients with work-related injuries, including at the WorkSafeBC Visiting Specialist Clinic. In this interview, Dr Panagiotopoulos explains why it is best practice to let patient history and physical-exam results guide the diagnosis and management of knee pain in these patients and to refer to orthopaedics before ordering an MRI scan.

What knee imaging is necessary before a referral to orthopaedics?

Specialists seeing referrals from primary care typically require a minimum of standing knee X-rays. We don't typically require advanced imaging for a referral.

In terms of advanced imaging, how do you choose between ultrasound, CT, and MRI? Knee ultrasound is almost never needed. In the elective world, one could consider it for reviewing cysts; however, ultrasound of Baker cysts is not useful, as it will not change treatment. For acute trauma, ultrasound may be useful if one is unsure of tendon rupture (e.g., patellar or quadriceps tendon rupture), but that is more typically a clinical diagnosis.

CT is useful in the setting of acute trauma to look at fractures in more detail for surgical decision making or planning. Electively, we rarely need a CT scan.

When considering an MRI scan, a clinician needs to decide whether the anticipated

findings will change management. They need to consider the duration of symptoms, age of the patient, mechanism of injury, and findings on physical examination. Will surgical management be considered?

Where physical examination points to internal derangement of the knee that is amenable to surgical treatment, MRI can be useful if it changes management. In cases of acute pathology (e.g., major trauma with a large amount of swelling leading one to consider ligament tears that may warrant surgical intervention, truly locked knee), I'll more urgently request an MRI scan.

For conditions that are not immediately acute or that have a clinical diagnosis that can be treated with nonsurgical methods, like patellofemoral pain, MRI is generally unhelpful.

It's most important to use the clinical area of pain to develop a working diagnosis, since imaging findings on MRI may not be

clinically important or relevant. For example, you might find a meniscus tear on MRI, but if the knee pain is not coming from the joint line (indicating meniscal pathology), then the pathology seen on the MRI scan may not be clinically meaningful.

I use MRI when I am thinking about surgery as a treatment option rather than using it for diagnostic purposes. If the scan will change management, then it's a more useful test.

Are there common misconceptions about when MRI is needed? Is it over-ordered?

MRI scans are often over-ordered. One reason for this is virtual care appointments, where there is an inability to examine exactly where the pain is coming from, so MRI is ordered. In addition, many primary care providers believe MRI is a prerequisite for referral. In orthopaedics, that is not true. We even tell our catchment area of local

A note to primary care physicians and nurse practitioners from WorkSafeBC

Thank you for seeing workers in person for physical examination of musculoskeletal complaints. Your clinical note is the most important documentation on forms.

If you're considering an MRI scan, please review WorkSafeBC's appropriateness criteria on Form 83D56, available at www.worksafebc.com/form-83D56. If the criteria are not met, we recommend referring your patient for further clinical examination.

You can refer directly to a sport medicine physician or a specialist in the community for the accepted area of injury without prior authorization from WorkSafeBC. Pathways BC filters may help you find specialists who will expedite referrals for WorkSafeBC patients.

Alternatively, you can contact WorkSafeBC and request consideration of a referral to a WorkSafeBC-contracted program physician or WorkSafeBC's Visiting Specialist Clinic. Contact WorkSafeBC by checking the applicable box on Form 8/11, leaving a voicemail at 1 855 587-7399, or placing a request via the RACEapp+.

Find your patient's claim status at <https://pvc.online.worksafebc.com>.

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primary care physicians, “Please send the patient without an MRI. Let us see if they need an MRI scan.”

What are the harms in ordering an unnecessary MRI scan, apart from costs?

Apart from taking away a slot from someone who might need the scan more urgently, MRI-reported findings can create a lot of anxiety since there is so much documented that is not clinically meaningful for your patient’s care. Patients will often read an imaging report line by line and wonder if the constellation of imaging findings explains their problem. While that can be the case, more frequently it is not.

How do you prepare patients for what they might read on the imaging report?

I try to foreshadow what they will see on the report, so they are not surprised. I tell them specifically what I am looking for (e.g., ligament tear) and that other findings are expected age-related changes that are not necessarily clinically relevant. When I see them afterward, I explain the findings and go through the report in more detail, but I always give them a heads-up before the scan is completed.

What is your bottom-line message to physicians who refer patients to orthopaedics?

You generally do not need MRI to refer to a specialist in orthopaedics, specifically for knees, as well as hips. It’s rarely useful in changing clinical management. You can refer to orthopaedics when in doubt, and the surgeon can triage the referral and then decide whether further imaging is necessary. If you look hard enough with higher-level imaging, particularly in patients over 50 years of age, you are going to frequently find pathology, and the MRI findings may not change patient treatment. It is better if the orthopaedic surgeon assesses the patient in person first and then decides when MRI can help with diagnosis or treatment. ■

—Celina Dunn, MD, CCFP, FCFP

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The low rates of accurate classification of overdose patients expose significant deficiencies in how overdose data are captured and, more broadly, handled in the health care system’s response to the toxic drug crisis. To mitigate these challenges, it is imperative to enhance data collection and refine classification systems, thus facilitating a meaningful response to this ongoing crisis. ■

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