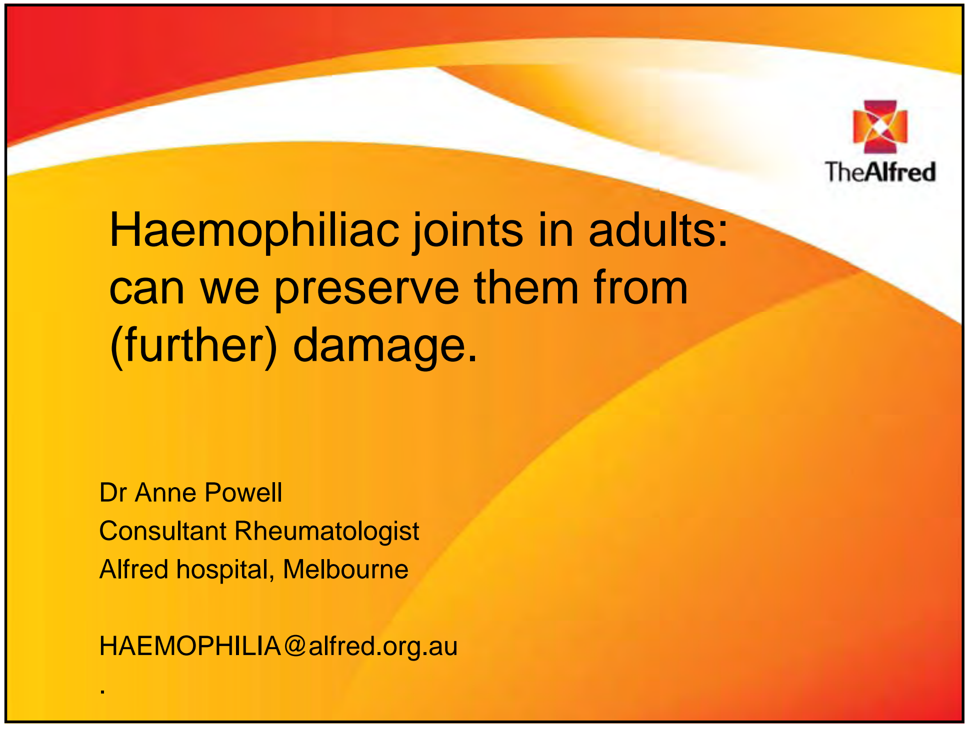
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Haemophiliac joints in adults: can we preserve them from (further) damage.
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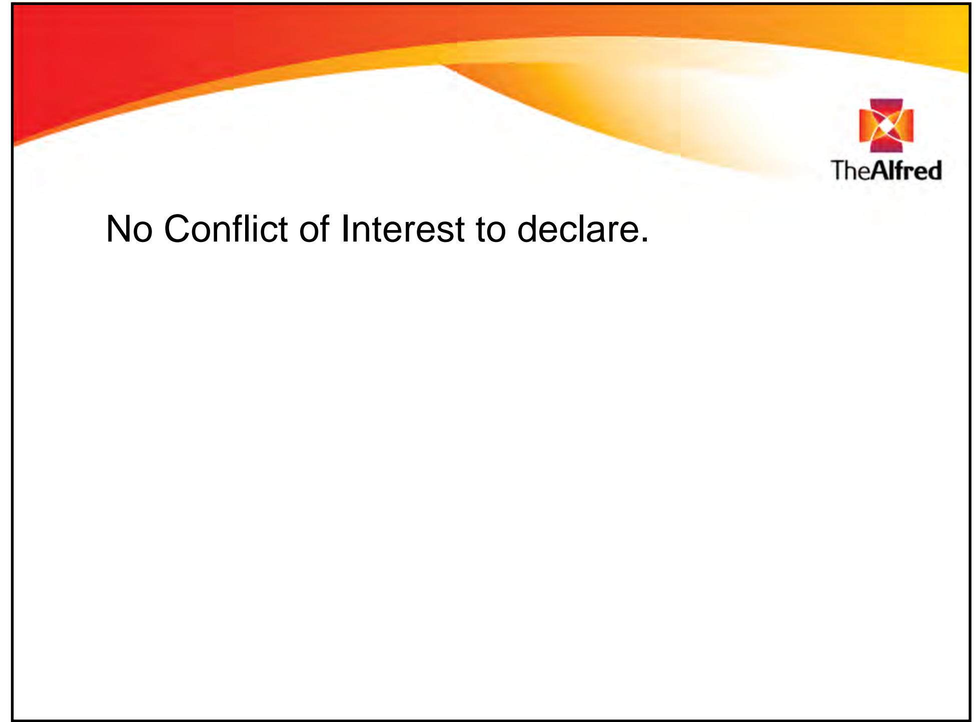
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No Conflict of Interest to declare.

Why is the adult approach different from the paediatric approach?

- Despite the new generation of patients who had access to product, we are still having to deal with target joints in the adult population.
- Adults tend to bleed into already damaged joints.
- Adults tend to develop a more sedentary lifestyle.
- Many more causes of joint pains to consider with increased age.
- Re-education in the adult setting ie not all joint pain is a bleed!

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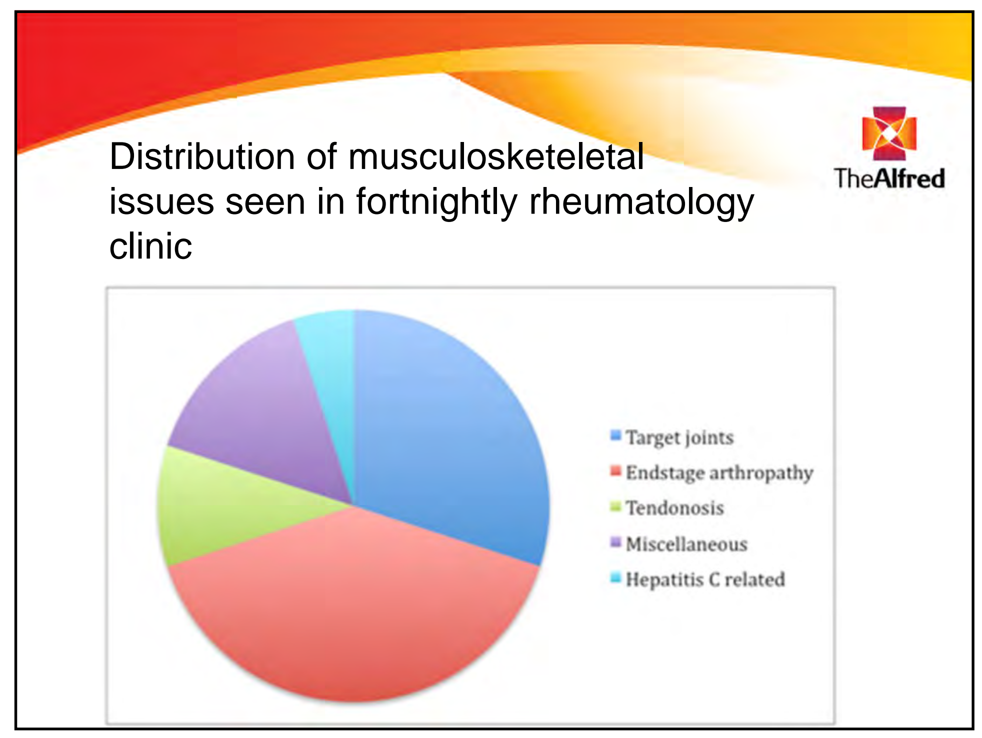
Distribution of musculosketeletal issues seen in fortnightly rheumatology clinic



Why is the adult approach different from centre to centre and country to country?

- Lack of randomised controlled trials.
- Lack of prospective auditing or publication of prospective data.
- Research done often on paediatric population. A lot of the adult data is over 20 years old and many other factors have changed in the interim (ie product access; viral co-infection).
- Access to dedicated musculoskeletal team (orthopaedics, rheumatology, physiotherapy)
- Access to nuclear medicine department experienced in yttrium synovectomy.

Patient numbers and spectrum of disease.

- The Ronald Sawers Haemophilia centre services approximately 800 patients.
- Around
  - 500 have haemophilia,
  - 250 have von Willebrands Disease
  - 50 have other inherited bleeding disorders.
- Inhibitors

Who makes up our multidisciplinary monthly clinic?

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- Haematologist
- 2 Haemophilia Nurses
- 1 Rheumatologist and 1 rheumatology registrar
- 1 haemophilia social worker
- 1 haemophilia physiotherapist
- 1 Pain services physician
- Occasional “drop ins” ie ID physician
- 1 data manager
- 1 secretary

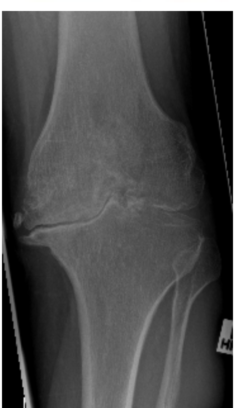
- Other models use an orthopaedic surgeon rather than a rheumatologist
- Other models have an in-house dentist and/or orthotist
- all team members are equal specialists in their own right
- We do not aim to take over the role of GP – we actively encourage all patients to have their own GP who we liaise with.

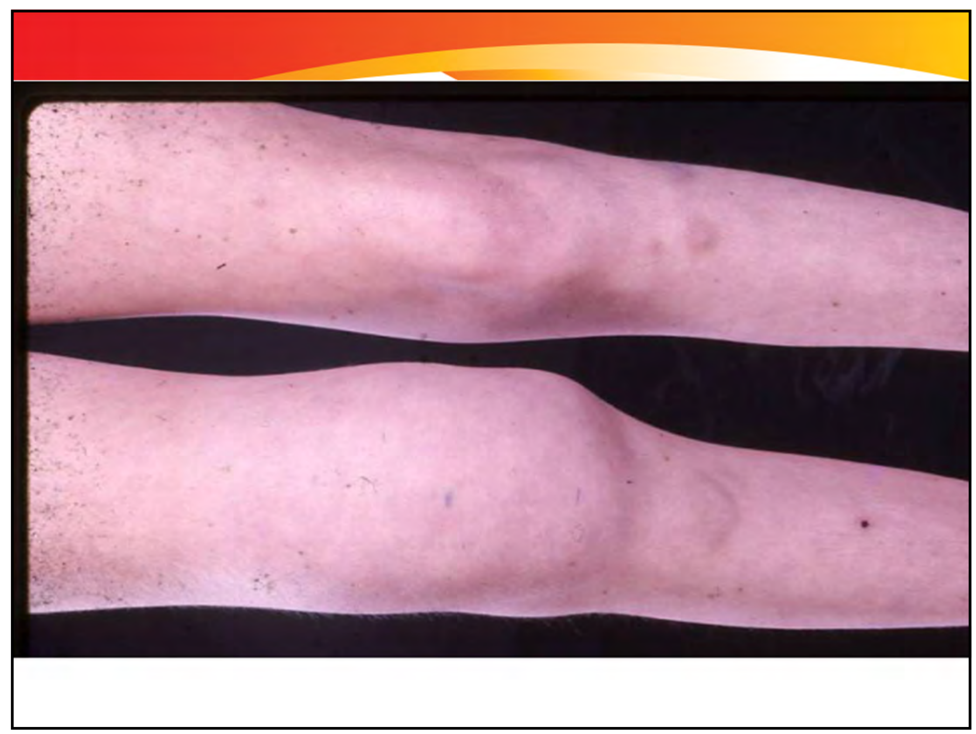
Rheumatology clinic

- Haemophilic arthropathy
  - Acute haemarthrosis
  - Subacute arthropathy
    - Product prophylaxis
    - Intra-articular injections
    - Yttrium synovectomy
  - Chronic arthropathy

- General musculoskeletal complaints
- Hepatitis C arthropathy / pegylated interferon-alpha-2
- Chronic pain syndomes
- Osteoporosis

- Advise re gym / exercise program





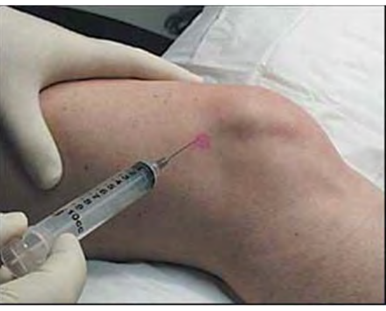
Intra-articular Corticosteroid

- “Corticosteroid injection alone seem to be effective for much shorter periods of time and are not generally considered an alternative to most radionuclide synovectomies”
- BUT, practise has changed, particularly in regards to prophylaxis and product use.
- Studies done over two decades ago.

Shupak. Intraarticular methylprednisolone. Therapy in hemophilic arthropathy. Am J Hematol 1988;27:26-9
Hollander. Intrasynovial corticosteroid therapy: A decade of use. Bull Rheum Dis 1961;11:239-40
Gray. Local corticosteroid injection treatment in rheumatic disorders. Semin Arthritis Rheum 1981;10:231-54

Yttrium synovectomy technique

- Similar technique to intra-articular cortisone injection
- Splinting / bracing
- Requires 1-2 night stay in hospital (at our institution)



Yttrium synovectomy in Haemophilic arthropathy

- 40 joints in 20 patients treated 1987-1991
- 19 severe and 1 moderate factor deficiency / 15 HIV positive
- Indications
  - Severe synovitis
  - Historically poor response to standard treatment
  - Repeated haemarthrosis
  - Joint pain
- No sided effects were encountered at the time or immediately after injection. Minor leakage to regional lymph nodes in 2 patients (2 joints)
- Significant reduction in joint bleeds ($p<0.001$)
- Significant reduction in factor usage ($p<0.001$)

Dawson, Ryan, Street, Robertson, Kalff, Kelly, Cicuttini. Yttrium synovectomy in haemophilic arthropathy. British Journal of Rheumatology. 1994;33:351-356

Physiotherapist

- Screening of patients – can often be “fixed” and thus more appropriate triage of patients to the rheumatologist / pain physician.
- Development of information
  - psoas bleeds,
  - Cortisone injections
  - arthroscopy- knee
  - ankle brochure
- Conservative management programs
  - Tailored exercise/stretching program
  - wobble cushion

Information sheets - example

- **CORTISONE INJECTION INTO THE JOINT FOR PEOPLE WITH HAEMOPHILIA**

Today you have been booked for an injection of cortisone. Cortisone injections are used for a variety of reasons, but usually to either prevent recurrent bleeds into the joint or to help reduce the pain in a badly damaged joint. It is a safe and effective treatment, however there are a few safety points that you need to be aware of.

Prior to the injection you will require a single dose of factor replacement. (If you prefer to treat at home please discuss the dose with the HTC). No further treatment should be required as the needle is the same size as those used in blood tests.

Following the injection it is necessary for you to rest the joint for the next 48 hours for maximum effect. You should decrease unnecessary activities for a week; you may walk around but a return to the gym or excessive activities are not recommended. After this you can return to your normal level of activity/exercise.

A cortisone injection contains local anaesthetic. This means that any prior pain in the joint may settle for a few hours and then return. The cortisone component does not usually help until 24-48 hours later. About 5% of people develop some irritation in the joint from the cortisone crystals. This is not dangerous, but can feel like a bleed with pain, swelling and redness for the first night or two. Use rest, elevation and ice and contact the HTC if severe.
During this time the use of ice and painkillers such as panadol may provide relief. Do not use anti-inflammatory medicines unless discussing it with the medical team as this may increase bleeding. Ice must be WRAPPED and can be applied to the area crushed or as a pack for 15-20 minutes, NO LONGER. Ice can be reapplied every hour.
If you are unsure if this is a bleed or a reaction to the cortisone please contact the HTC. If you have treatment at home please seek advice from the HTC **BEFORE** treating.

The risk of infection being introduced during the injection is less than 1 in 10,000. If you experience swelling and/or redness in the joint or fevers and sweats after several days to a week, there is the possibility of infection. An infection is potentially serious and you should seek medical attention immediately.

If you have any concerns please contact the HTC to discuss with them. If it is after hours please follow the instructions on the HTC answering machine.

Pain Services

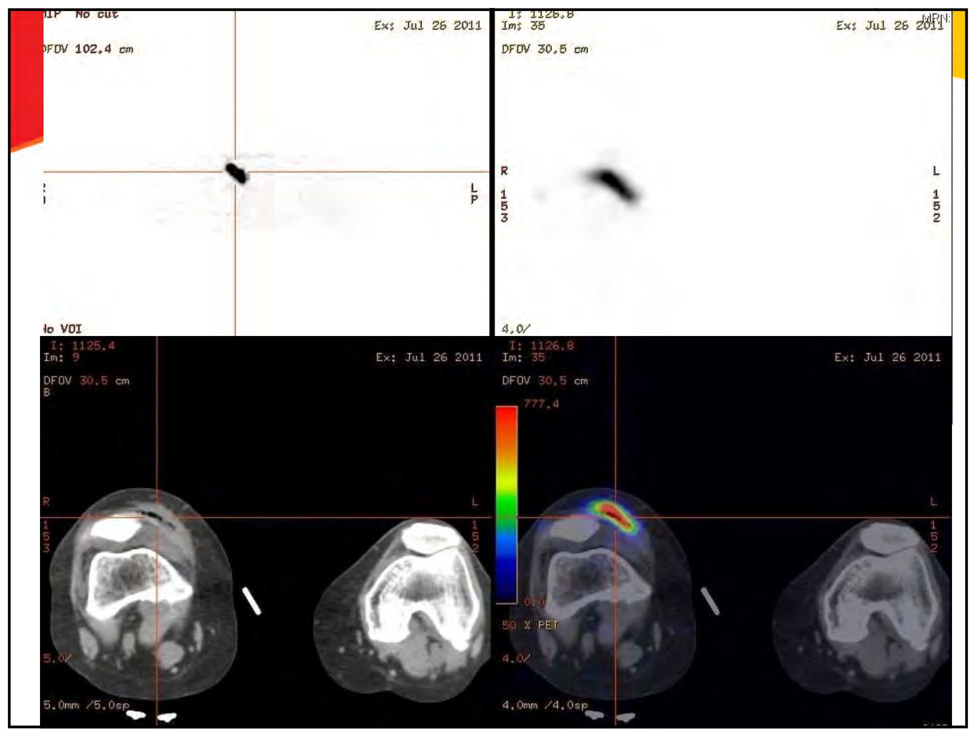
- Management or avoidance of opioid dependence
- Peri-operative care issues
- Liaison with acute and chronic pain services
- Issues around different types of pain and optimal management at home.
- Tailored pain management regimen

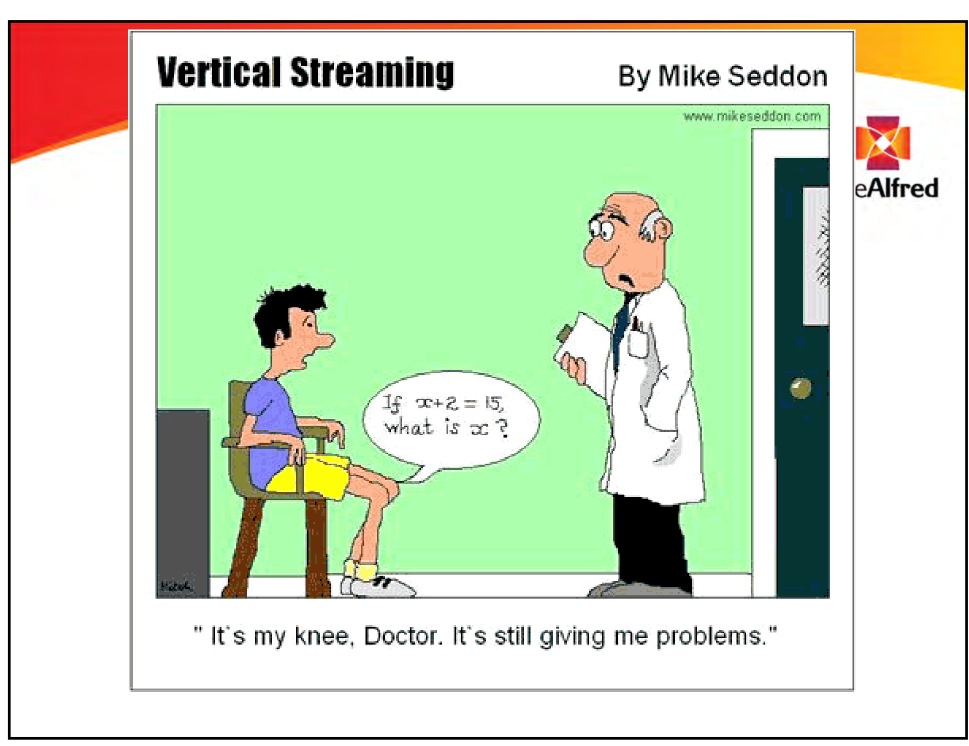
Research Done

- Retrospective audit of joint replacements
  - Confirmed suspicions about side effects, but effective pain relief
  - No “pre and post” ROM data – ROM appears poor.
- Retrospective audit yttrium synovectomy
  - 9 patients; 15 joints
  - Significant improvement in 3 patients. Incomplete improvement 1
  - Safe (2 small leaks with no clinical sequelae; one possible bleed)
  - Different from 1987-91. Product prophylaxis / early intervention / steroid injections / less HIV positive / MRI with gadolinium detects subtle secondary synovitis
- Foot orthoses
  - 20 patient fitted over 2 year period
  - Compliance high
  - Pain reduction rather than reduced bleeds.
  - Greater benefit seen with ankle rather than knee

Research in progress!

- Prospective collection data for all interventions (cortisone injections; yttrium synovectomy; surgical interventions
  - (initial data analysis planned Jan 2012)
  - VAS pain scale
  - Functional assessment score
  - Range of movement
  - Will need a RCT for cortisone injections / yttrium synovectomy and surgical interventions once baseline data collected
- Contrast enhanced ultrasound and the detection of synovitis in haemophilic arthropathy – a suitable alternative to MRI? – funding application submitted
- Osteoporosis
  - DEXA
  - Vit D levels
- Ethics submission in final stages for study on PET-CT post yttrium synovectomy.




Vertical Streaming
By Mike Seddon
www.mikeseddon.com
If x+2 = 15, what is x ?
" It`s my knee, Doctor. It`s still giving me problems."
eAlfred