

# Painful Total Knee Replacement

## Fibrosis

Andrew Toms

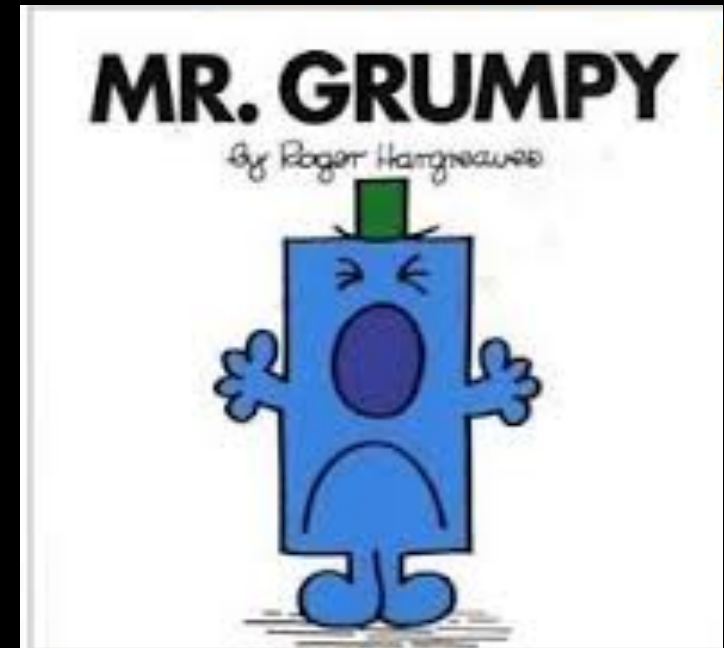


**EKRU**

Exeter Knee Reconstruction Unit

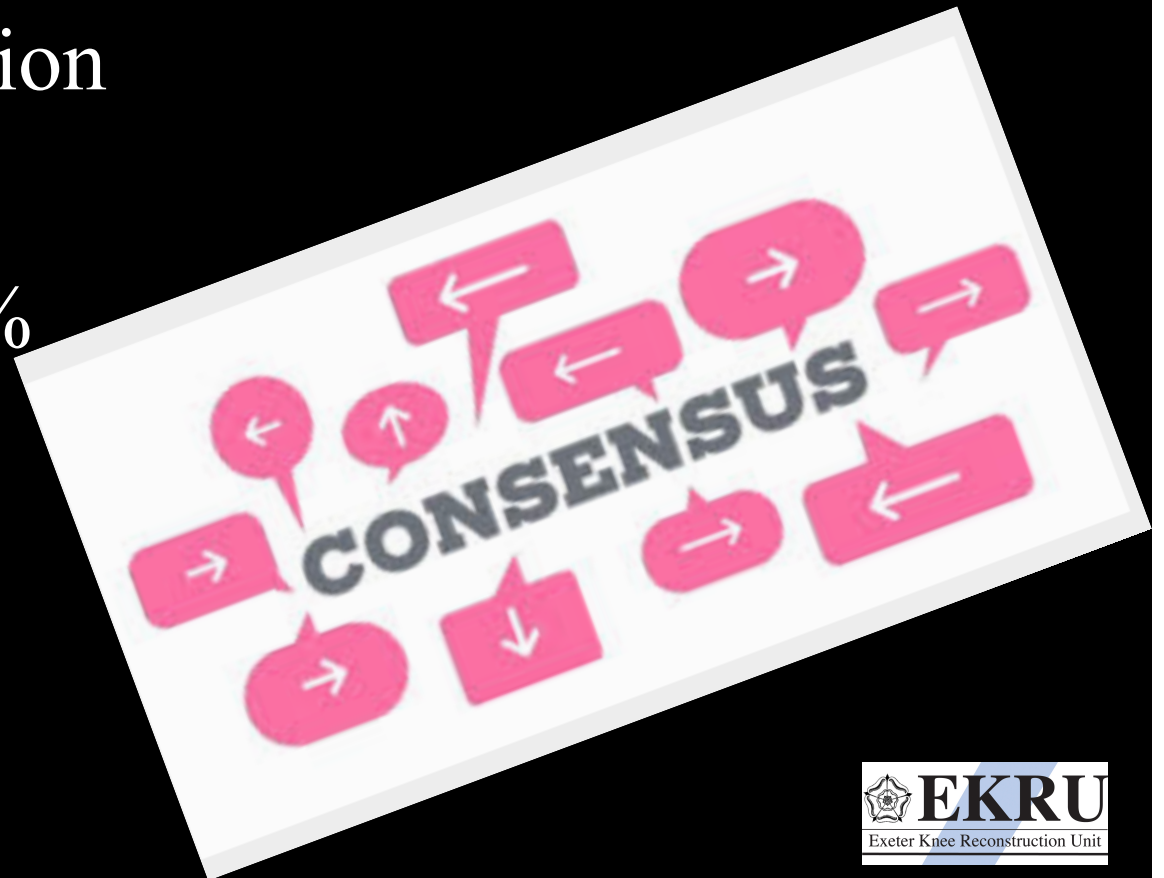
# Fibrosis Post TKR

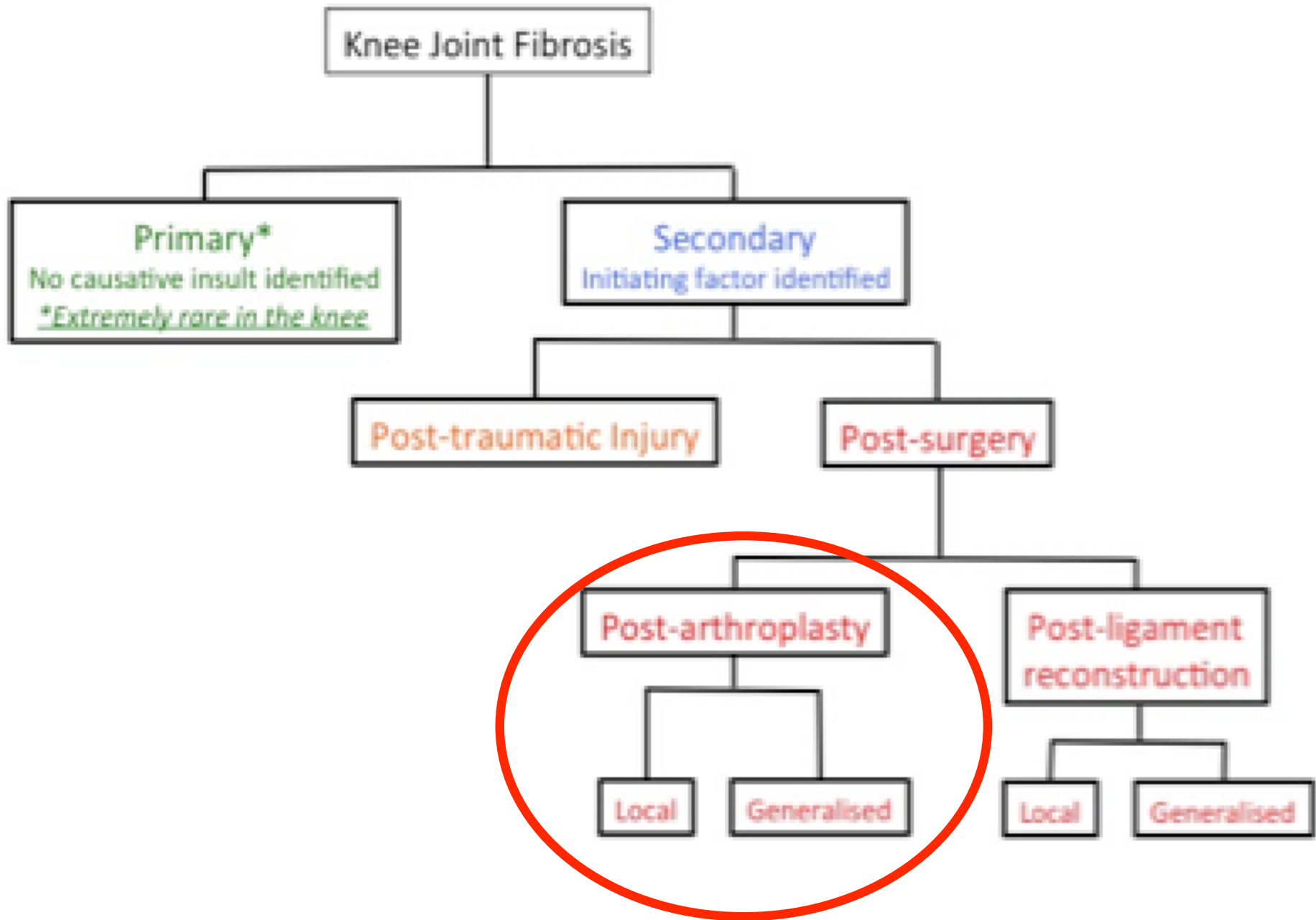
- ◆ Update
- ◆ Define
- ◆ Investigations
- ◆ Criteria for diagnosis
- ◆ Algorithm for management
- ◆ What more could you want?



# Headline News...Headline News

- ◆ International Expert Consensus group
- ◆ Awaiting publication
- ◆ Incidence 1%-15%





# Definition

## Consensus Statements – Definition and Classification

- *Post-surgical Knee Joint Fibrosis is defined as restricted ROM, in flexion or extension, that is not attributable to osseous or prosthetic block to motion from mal-positioned components, metalwork, ligament reconstruction, infection, CRPS or other specific causes, and is due to soft tissue fibrosis that was not present pre-operatively.*
- *Joint fibrosis may be spontaneous (primary) or following an insult such as surgery or trauma (secondary).*
- *Spontaneous knee joint fibrosis, in the absence of trauma or surgery, is extremely rare. Post-trauma or post-surgery knee fibrosis is much more clinically important.*
- *This classification can be further sub-categorised into post-arthroplasty joint fibrosis, post-ligament reconstruction fibrosis etc. according the algorithm in Figure 2*

# Definition Keys

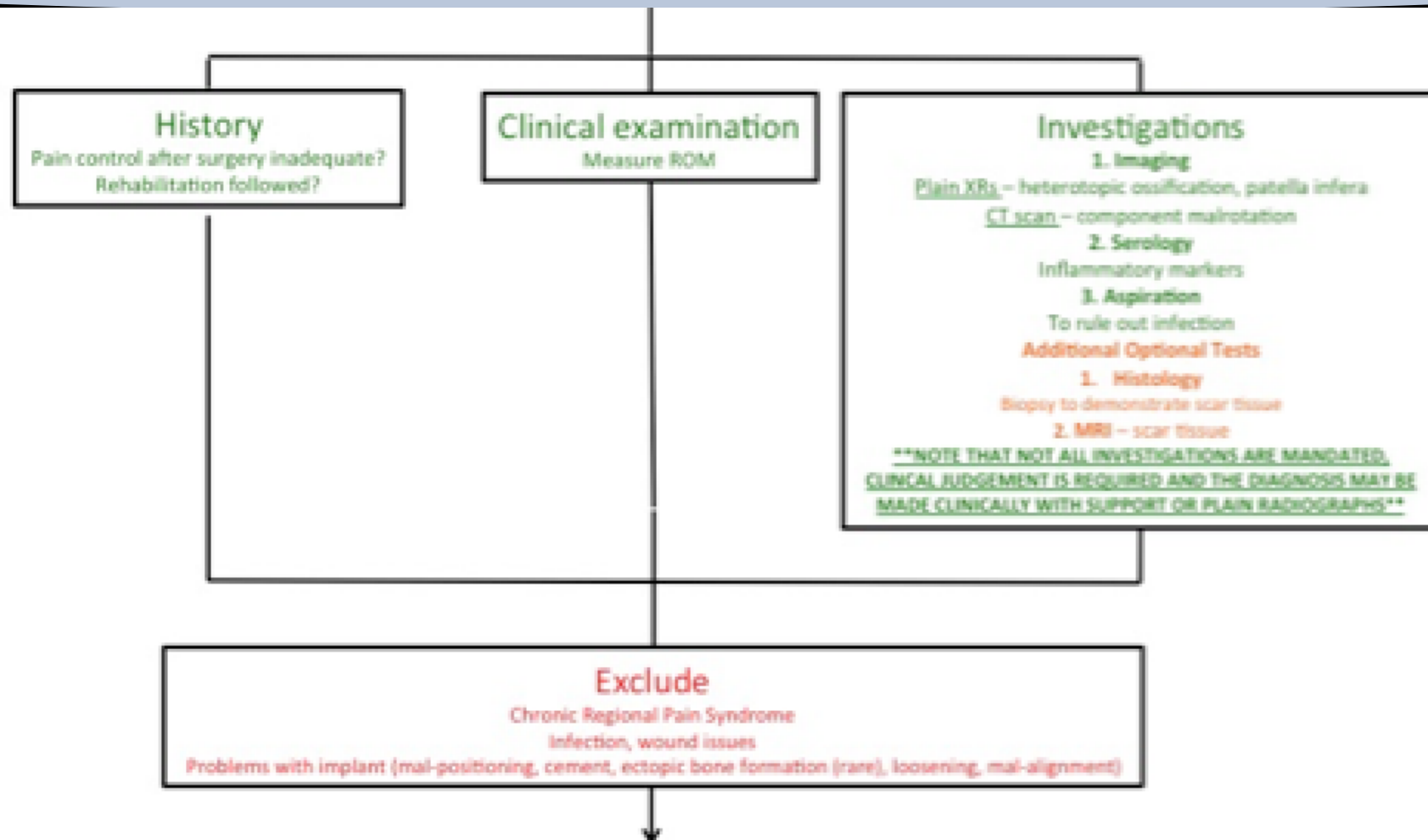
Restricted ROM in flexion OR extension...

not attributable to osseous or prosthetic block...

Or other cause and is due to soft tissue fibrosis

That was NOT present pre op...

# Investigations



# Investigation

## Quadruple Assessment

Clinical – History + Examination

Serological – ESR CRP

Radiological – XR CT

Microbiological - aspiration

Measure and record ROM

**Intervene early and decisively!**



# Investigations

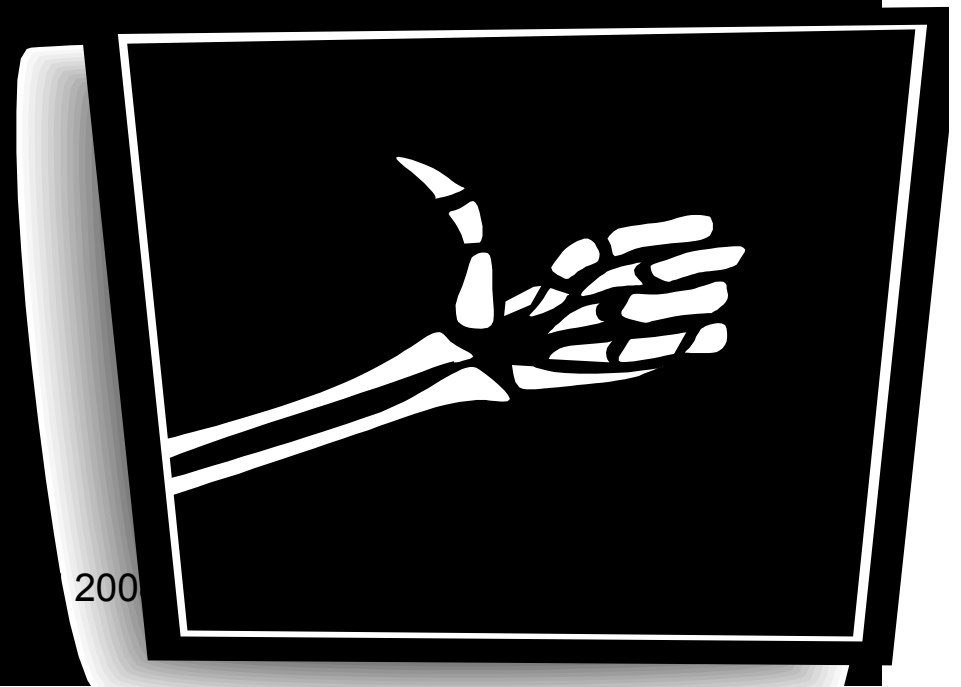
- ◆ NO Bone Scan / MRI / Histology
- ◆ NO operation to make diagnosis
- ◆ Clinical Diagnosis
- ◆ Exclude Infection, trauma, and other problems and



# Value Added Range of Motion

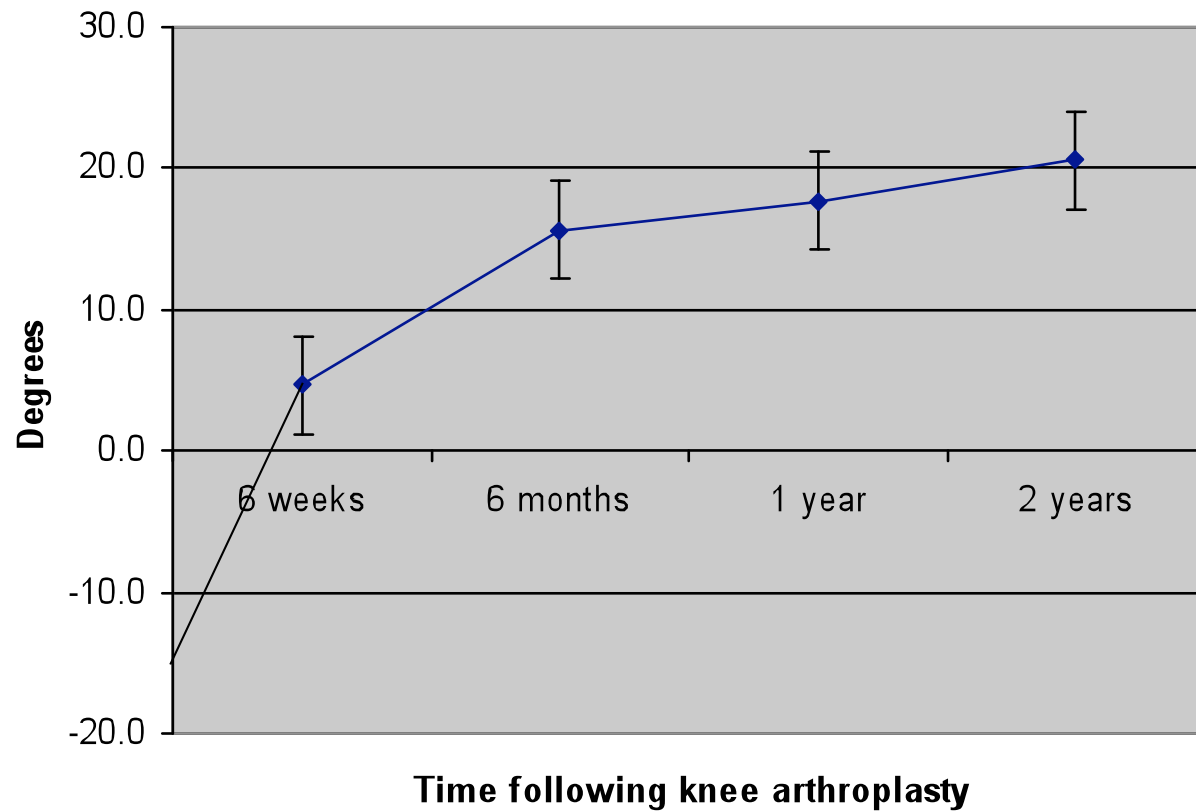
- ◆ MUST MUST MUST Record Preop ROM

$$\text{VAROM} = \text{Postop ROM} - \text{Preop ROM}$$



# VAROM

## Value added range of motion



# Range of Motion

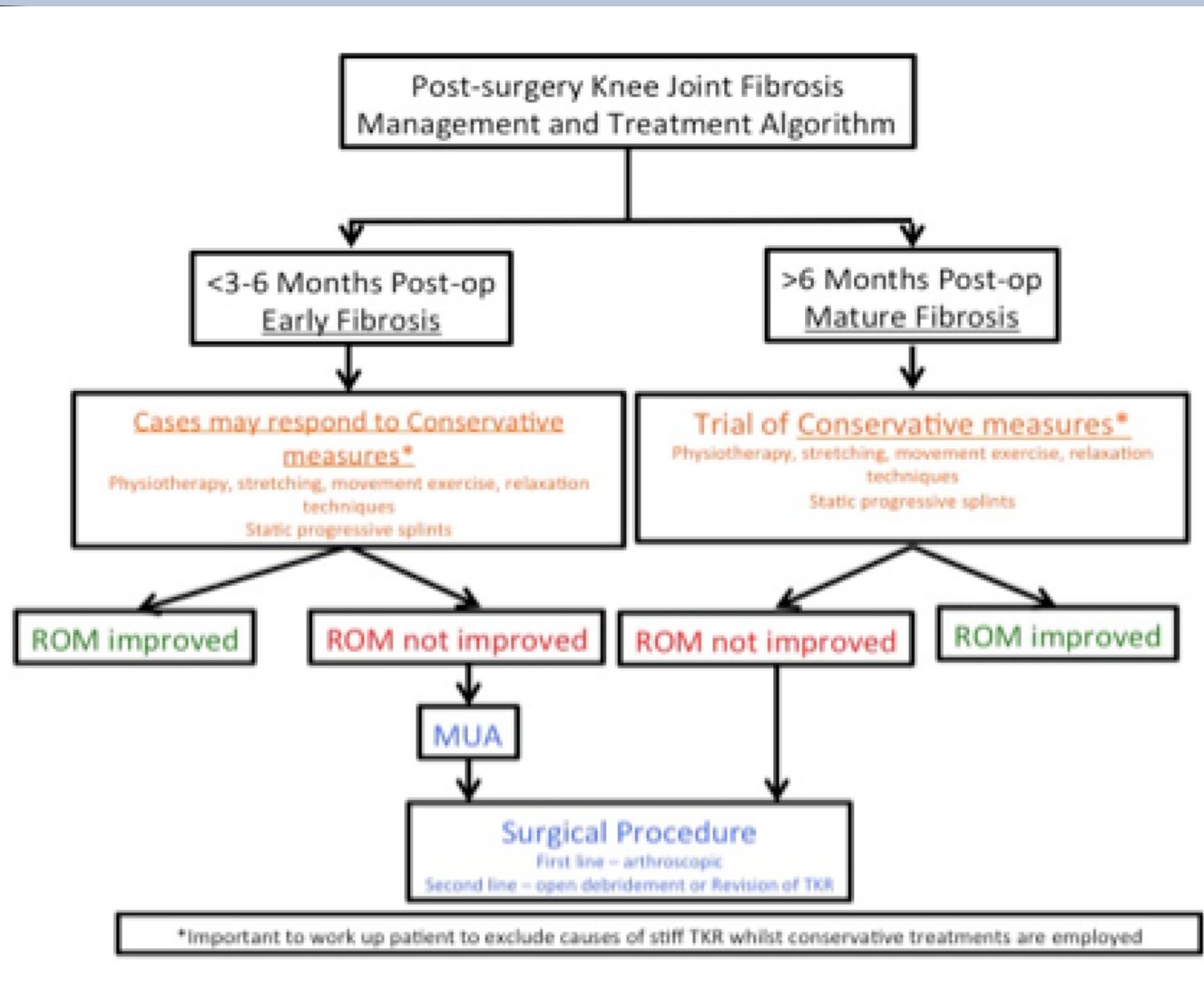
## Loss

Extension	Mild	5-10
	Moderate	11-20
	Severe	>20

Flexion	Mild	90-100
	Moderate	70-89
	Severe	>70



# Management



# Some Stiff Knees have a cause...

Extrinsic / Intrinsic



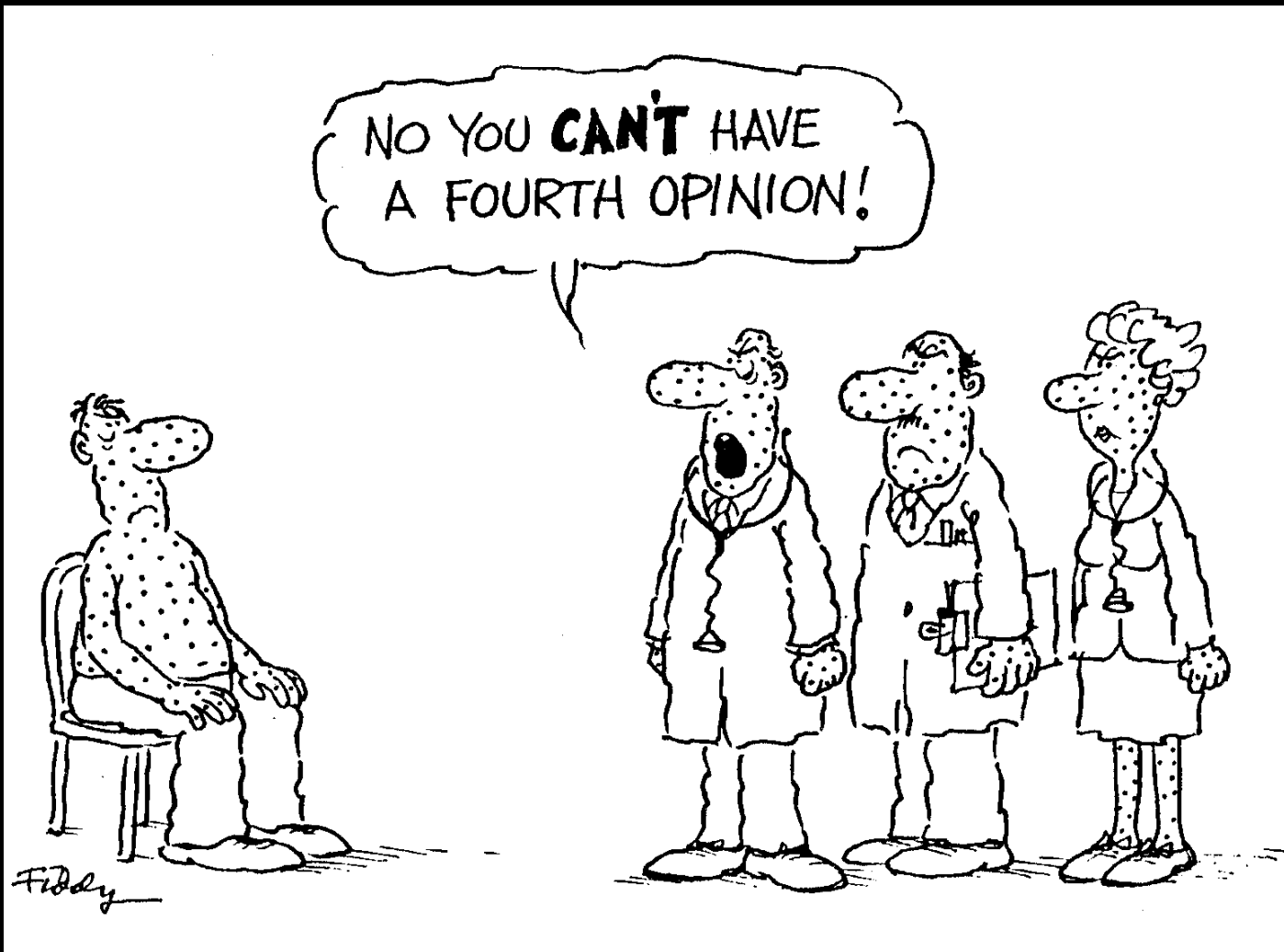
...Some Don't!

# Revisions

- ◆ Be realistic
- ◆ Counsel patient
- ◆ Remove pressure to revise
- ◆ Only pick winners



# Ask for a Second Opinion





# Key Facts: Fibrosis post TKR

Things you really need to know:

1. Record ROM preop
2. Concept of Value added range of motion
3. Pain Control / Physio / Quadruple Ix
4. Multifactorial (Guilt / Blame / 2nd Opinion)
5. Its Difficult..

*Thank You*



**EKRU**

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Exeter Knee Reconstruction Unit

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