Lisa Stamp
Rheumatologist
What is arthritis?

- Inflammation of the joints
- Limp, swelling, stiffness, grumpy
What is juvenile idiopathic arthritis (JIA)?

- Any arthritis which starts before age 16
- Prevalence between 1/500 and 1/1000 Australia
- JIA encompasses a number of different types of arthritis
JIA

- Oligoarticular (<6 joints)
- Polyarticular (>6 joints)
  - RF +ve
  - RF -ve
- Systemic onset (fever, rash)
What happens in JIA

- Joints feel uncomfortable, swell and become stiff
- Night and morning especially bad
- Limp, swelling, stiffness, grumpy
- Associated tiredness, may feel unwell
- Rash and fever in some
Arthritis

Rash

Eye problems
Diagnosis

- History
- Examination
- Blood tests – no blood test makes a diagnosis of arthritis
- Occasionally x-rays
Blood tests

- ANA – relationship with eye problems
- Rheumatoid factor
- Drug monitoring
- Disease monitoring
  - ESR
  - CRP
<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
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<tbody>
<tr>
<td>Haemoglobin</td>
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<tr>
<td>Haematocrit</td>
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<tr>
<td>Mean Cell Volume</td>
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<td>Mean Cell Haemoglobin</td>
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<td>Red Cell Count</td>
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<td>Platelet Count</td>
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<tr>
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<td>Basophil</td>
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<tr>
<td>Erythrocyte Sed. Rate</td>
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Treatment

• Aims:
  – relief of symptoms
  – preserve or improve function
  – prevent deformity

• No cure, but most patients do well with modern treatment
Physiotherapist

Patient and Family

Nurses

GP
Rheumatologist
Paediatrician
(Orthopaedic surgeon)

Support and education

School

Occupational Therapy

Eye Doctor

Medications

ARThRITIS NEW ZEALAND
ENABLING A BETTER QUALITY OF LIFE
KAIPONAPONA AOTEAROA
Te whakapiki i te kounga ora
Drug Management

- NSAIDs
- Steroids
- DMARDs
  - methotrexate
  - etanercept
Non-steroidal anti-inflammatory drugs (NSAIDs)

- First line treatment
- Can reduce pain, swelling and stiffness
- Potential side effects - irritation of stomach lining
Steroids - prednisone

- Oral, intravenous, intra-articular (into joint)
- Work quickly
- Many side effects especially in the medium-long term
Joint injections

• Indications
  – a few joints inflamed failed NSAID alone
  – many joints inflamed with one or several target joints not controlled with NSAID
• Generally requires anaesthetic
• Potential complications
  – scar, infection (very rare)
• Splint joints for 2-3 days after injection
Joint injections

- Almost all have beneficial response
- 60% beneficial response persists for at least 6 months
- 45% no evidence of inflammation at 1 year
- Allows reduction of NSAID use
Disease modifying anti-rheumatic drugs (DMARDs)

- Slow acting drugs which prevent progression of disease and joint damage
Methotrexate

• Most commonly used DMARD
• Usually well tolerated - can cause nausea
• Requires blood tests about every 3 months
Etanercept

• New treatment for arthritis
• Inhibits a chemical called TNF which drives the inflammation in joints
• Given by injection twice a week
• Very expensive
Etanercept NZ criteria

- Adjunct to Methotrexate
- <18 years at start of therapy
- Severe active polyarticular JIA >6months
- Not responded to 3/12 MTX + steroids
- Not responded to 3/12 MTX + another DMARD
- >20 active joints or 4 large joints
- Physician global assessment severe disease
- Parental consent to registry and renewal criteria (50% reduction at 4 mths)
Emerging treatments for JIA
Eyes in JIA

- In some children with arthritis there is inflammation in the eye.
- Typically young girls.
- May be asymptomatic.
- May cause visual impairment.
- Need regular eye checks.

Prognosis

• Many children do very well with treatment
• Arthritis may settle completely but many continue to require medication into adulthood