

# Management of rheumatoid arthritis and biologic therapies

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# Pathology in RA

Normal Joint    Inflamed Joint

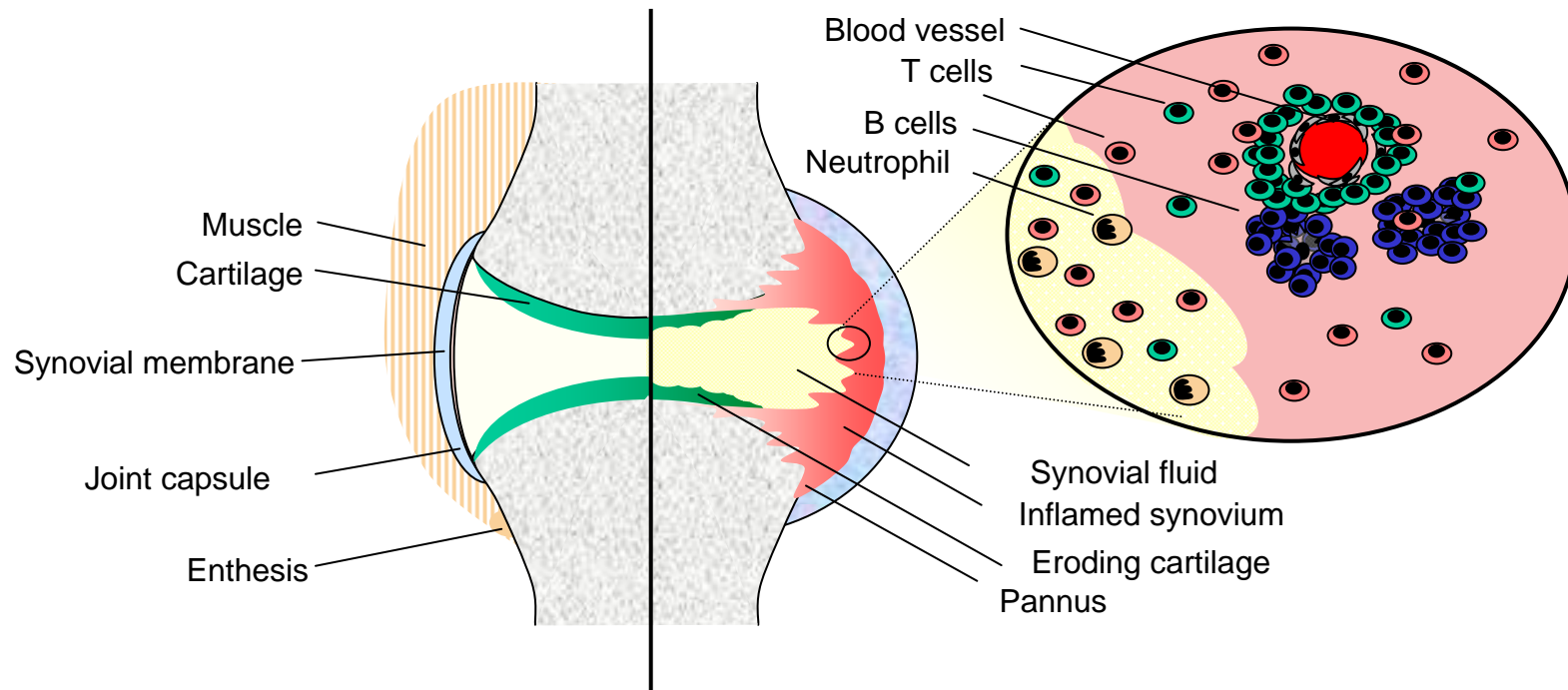


Figure 6 : Comparison between Normal and Inflamed joints



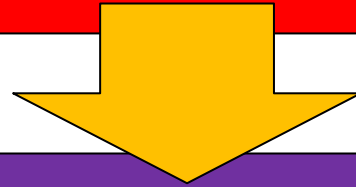


**Peripheral joint  
pains x 3 areas  
Early morning  
stiffness**

**Peripheral joint  
pains x 3 areas  
Early morning  
stiffness**

**>3 weeks**

**Urgent assessment  
for diagnosis**



**DMARDs  
Analgesia  
MDT  
Steroids**

Peripheral joint  
pains x 3 areas  
Early morning  
stiffness

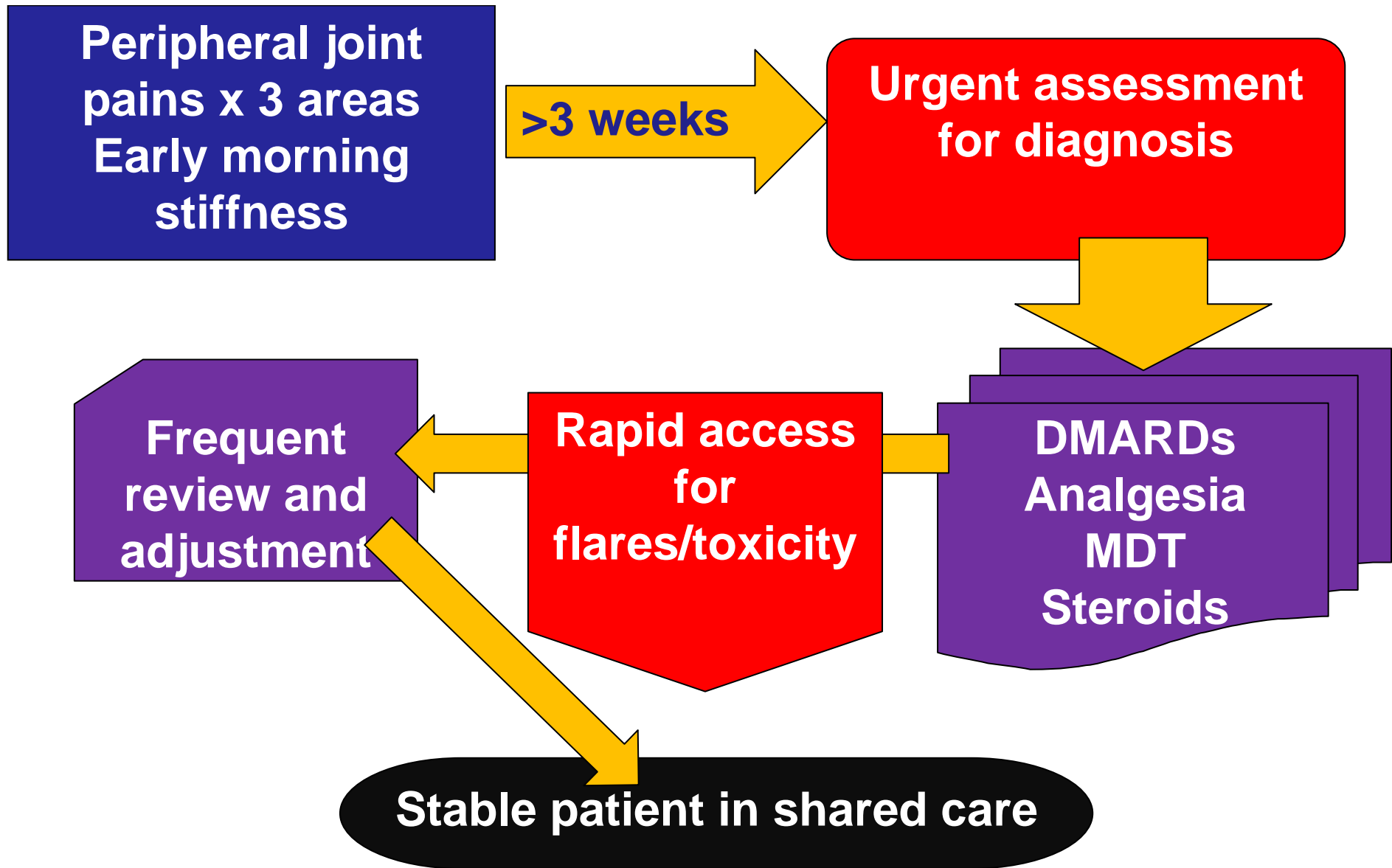
>3 weeks

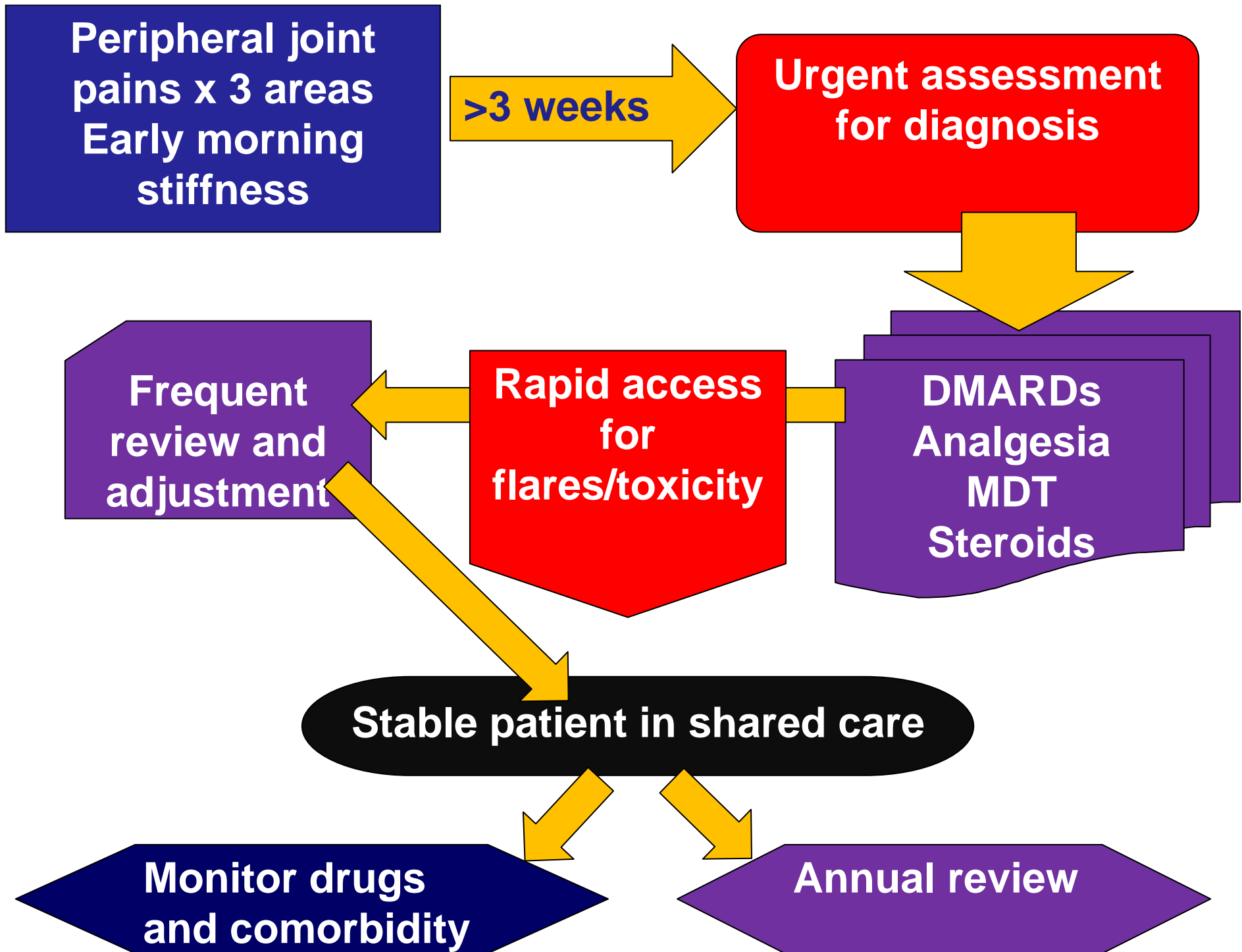
Urgent assessment  
for diagnosis

Frequent  
review and  
adjustment

Rapid access  
for  
flares/toxicity

DMARDs  
Analgesia  
MDT  
Steroids

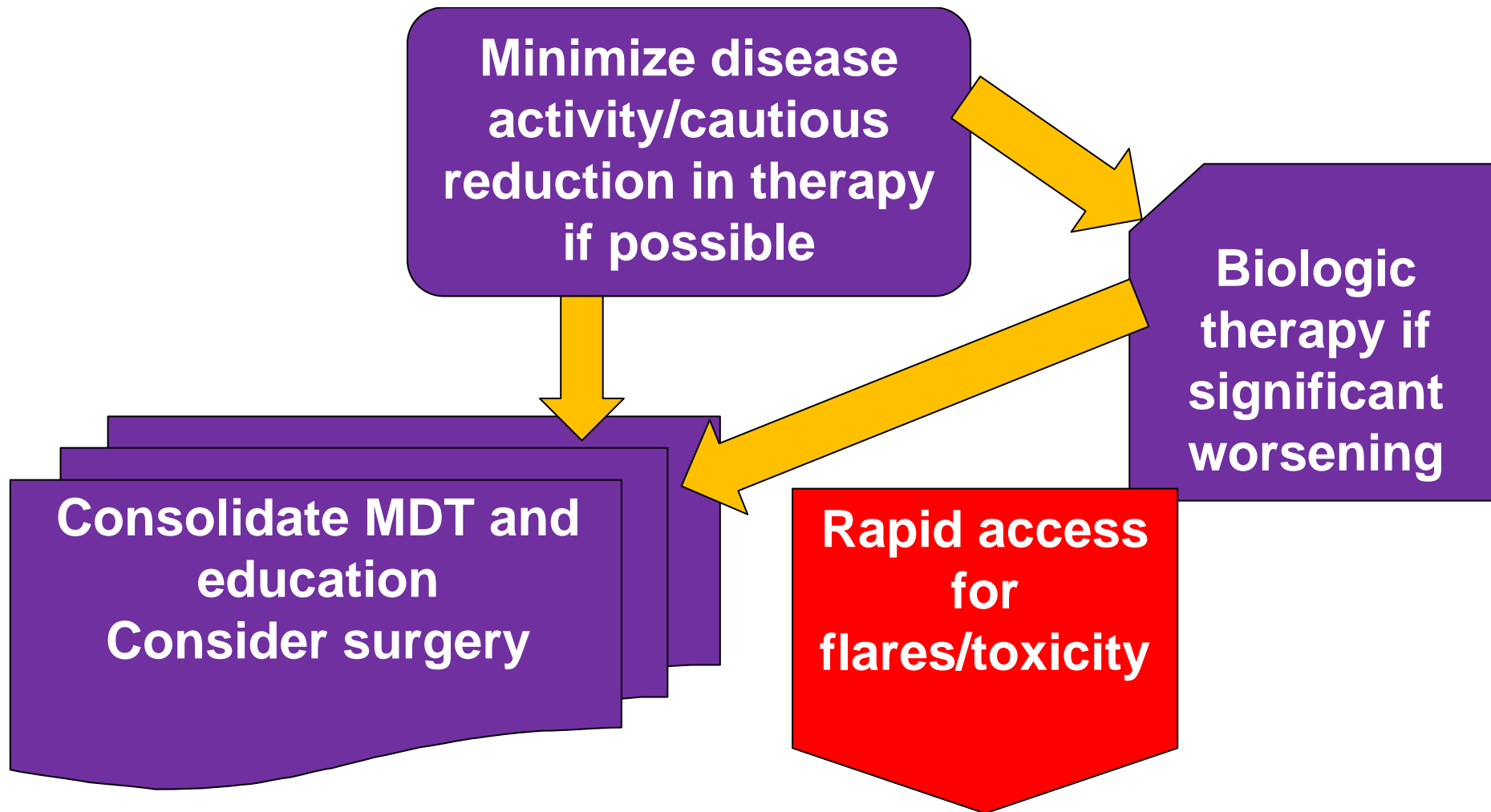


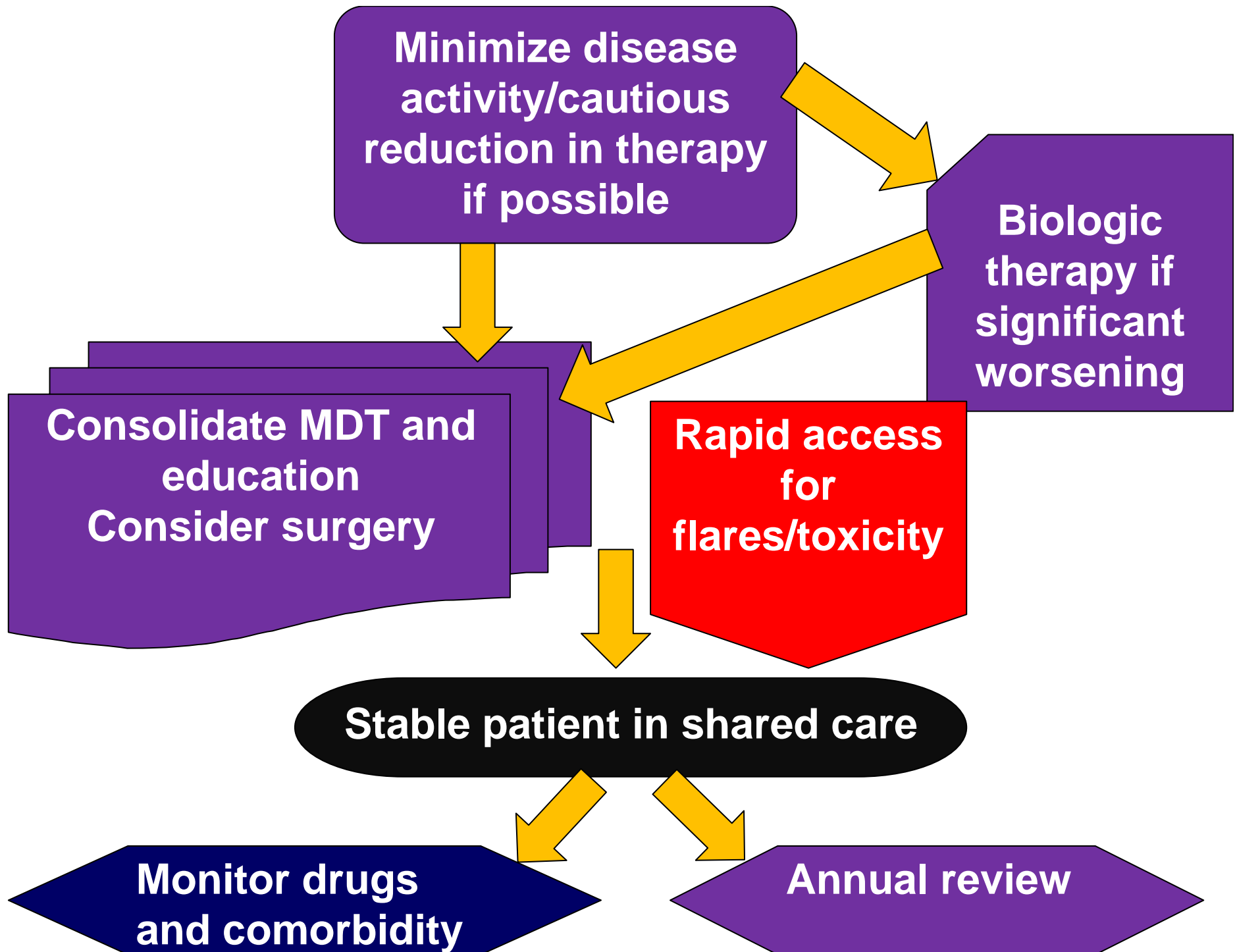


# Disease modifying drugs

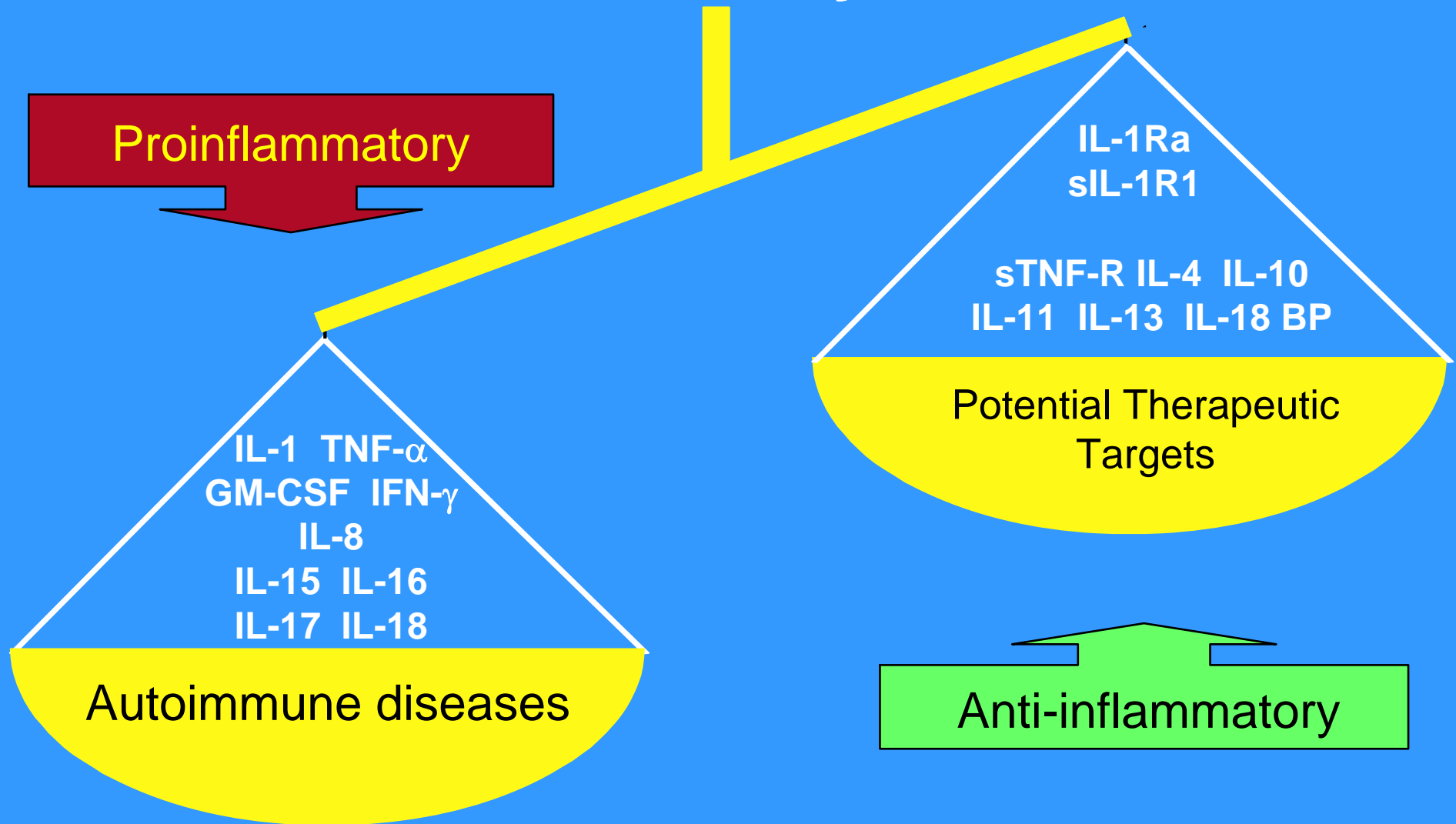
- Methotrexate up to 25mg/week
- Leflunomide up to 20mg per day
- Sulfasalazine up to 40mg/kg/day
- Hydroxychloroquine up to 400mg per day
- Combinations are better
- Plus short term steroid

**Minimize disease  
activity/cautious  
reduction in therapy  
if possible**





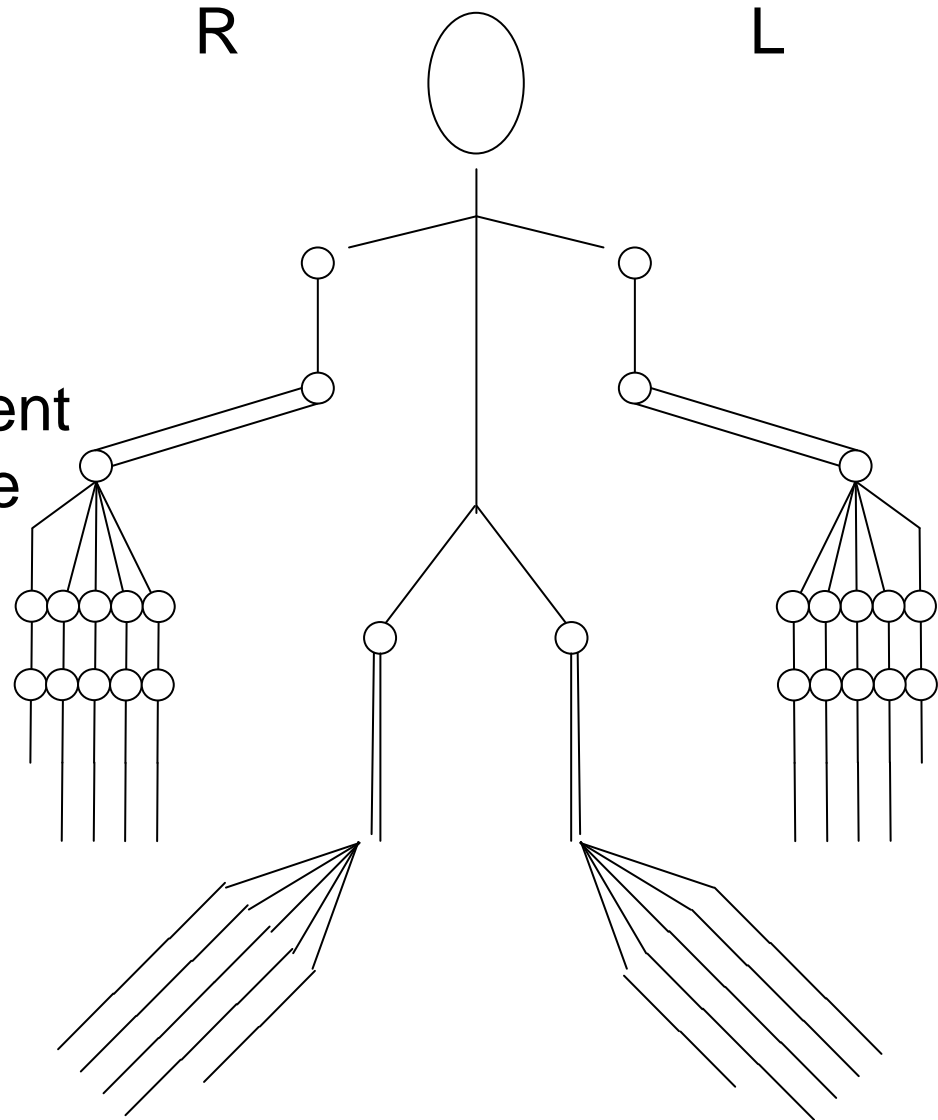
# Restoration of Equilibrium in Rheumatoid Synovitis



Adapted from Arend WP. Physiology of cytokine pathways in rheumatoid arthritis. *Arthritis Rheum.* 2001; 45:101-106.

# DAS 28

- 28 tender joint count
- 28 swollen joint count
- ESR or CRP
- general health assessment (100 mm visual analogue scale)



The EPS logo consists of the letters "EPS" in a bold, white, sans-serif font, centered within a solid blue square.

# EvaluateLogix 2T

[www.epsresearch.com](http://www.epsresearch.com)



NHS Innovations South East

Nuffield Orthopaedic Centre



ASSESSMENTS AND TOOLS

01-Sep-2008 Rheumatoid Arthritis

Assessments	< Add	Enter/Accept	<< ALL	Data/Calculations
28 Tender Joint Count		< Accept		Open >
28 Swollen Joint Count		< Accept		Open >
CRP		< Accept		Open > N/A
ESR (mm/hr)		< Accept		Open > N/A
patient VAS (0-100) General Health		< Accept		Open > N/A
MD19	M	< Accept		Open > N/A
urolog EQ-5D	M	< Accept		Open >
HAQ: Health Access Questionnaire	M	< Accept		Open >

Record: 1 of 11

(Re)calculate Tool Scores

Tools	< Add	Enter/Accept	<< ALL	Calculation
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AS28-ESR		Value: <input type="text"/> < Accept		View >

Record: 1 of 2

Patient Letter and Supplementary Questions < Patient Visit

ASSESSMENT - 28 JOINT TENDER COUNT

01-Sep-2008

Section	Question	Right	Left
JOINT 28	4 Shoulders	<input type="text"/>	<input type="text"/>
JOINT 28	5 Elbows	<input type="text"/>	<input type="text"/>
JOINT 28	6 Wrists	Yes	<input type="text"/>
JOINT 28	8 MCP1	<input type="text"/>	<input type="text"/>
JOINT 28	9 MCP2	<input type="text"/>	<input type="text"/>
JOINT 28	10 MCP3	<input type="text"/>	<input type="text"/>
JOINT 28	11 MCP4	<input type="text"/>	<input type="text"/>
JOINT 28	12 MCP5	<input type="text"/>	<input type="text"/>
JOINT 28	13 H:PIP1	<input type="text"/>	<input type="text"/>
JOINT 28	14 H:PIP2	<input type="text"/>	Yes
JOINT 28	15 H:PIP3	<input type="text"/>	<input type="text"/>
JOINT 28	16 H:PIP4	Yes	<input type="text"/>
JOINT 28	17 H:PIP5	<input type="text"/>	<input type="text"/>
JOINT 28	23 Knees	<input type="text"/>	<input type="text"/>

Record: 12 of 14

Close and Recalculate

# Biologic therapy

- Monoclonal antibodies against specific cell mechanisms
- Anti – TNF (tumour necrosis factor)
- Anti B cell

# Anti-TNF agents

- Infliximab
- Etanercept
- Adalimumab

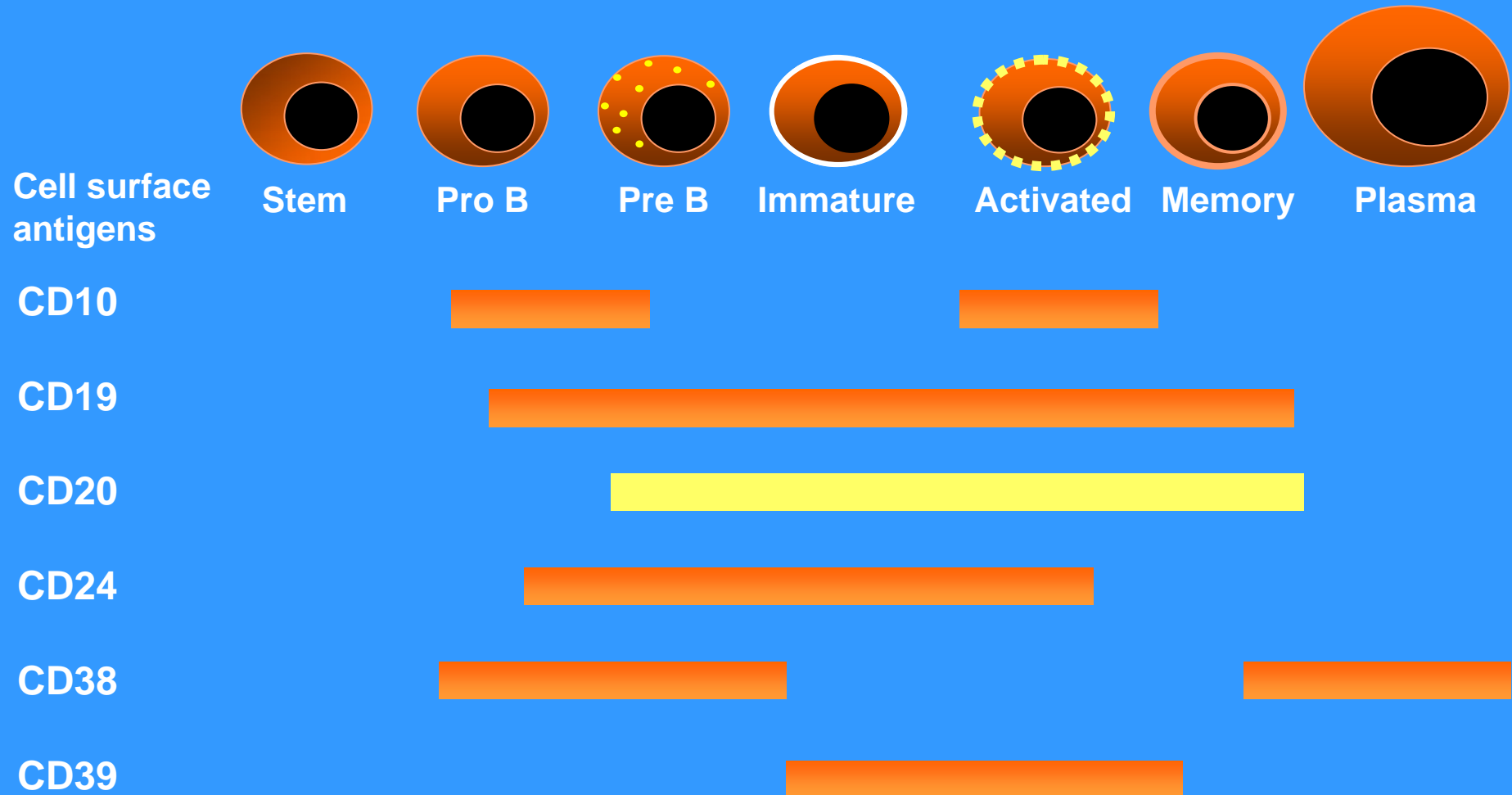
# Anti TNF therapy

	Etanercept	Infliximab	Adalimumab
Class	sTNF-R construct	TNF-a mAb	TNF-a mAb
Construct	Recombinant	Chimeric	Humanised
Binding target	TNF-a/LT-a	TNF-a	TNF-a
Administration	Subcutaneous 1x/week	q 8 week iv with MTX	Subcutaneous 1x/14 days

# Anti-B cell therapy

- Rituximab

# B cell maturation



# Conclusions

- RA should be diagnosed and managed as quickly as possible
- Current treatment is complex and requires multidisciplinary care
- Drug therapy includes the use of targetted biologic therapy