ARHP Clinical Focus Course - Challenge 1: What Measure to Use: Selecting Measures for Community Standards Using Rheumatoid Arthritis as an Example

Getting to the Answer

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Disclosures

• I have no conflicts of interest to disclose

Key References


Treat to Target in Rheumatoid Arthritis

Treat to Target

1997 – Biologic revolution begins with breakthrough efficacy in rheumatoid arthritis

2004 – the TICORA study shows that similar degrees of efficacy can be achieved with tight control driven by frequent monitoring and treating to a target using non-biologic medications

2005 – BeSt study – early and intensive suppression of disease activity results in earlier clinical improvement and suppression of joint damage – treatment strategy trumps drug selection

Active RA
Adapt therapy according to disease activity

Main Target
Use composite (disease activity, pain, disability) measure

Low Disease Activity
Adapt therapy according to disease activity

Remission
Adapt therapy if sustained

Sustained Remission
Adapt therapy for sustained remission

Sustained Low Disease Activity

Low Disease Activity

Achieve disease control

Remission

Sustained Remission

http://www.t2t-ra.com

The mission of Treat To Target is to provide clear direction on rheumatoid arthritis treatment target(s) and tight control, apply it clinically, and define a clinical state where irreversible joint damage and disability is avoided.
DMARD use
Functional Assessment
Estimation of Prognosis
Measurement of Disease Activity
TB testing prior to TNF based therapy
Glucocorticoid Management

Data from PQRS - 2011

257 rheumatology providers in 243 practices submitted data on 8096 patients with RA from January 1, 2011 to December 31, 2011. Reporting providers practice at sites ranging from solo offices to large academic medical centers.

Process Improvements in Rheumatoid Arthritis Management

- Measure the Target
  - Disease Activity Score
- Manage the Target
  - Treat-to-Target
- Master the Target (improve)
  - Population Management
  - Benchmarking

Disease Activity Measurement

Which rheumatoid arthritis disease activity measures are valid? What’s feasible to perform in clinical settings?

Rheumatoid Arthritis Disease Activity Measures: American College of Rheumatology Recommendations for Use in Clinical Practice
Measure Selection Process

Continuous composite measure for clinical practice (point-of-care)

OMERACT* Filter

Truth

Discrimination

Feasibility

Outcome Measures in Rheumatoid Arthritis Clinical Trials

HAQII + Pain + Patient Global = PAS II

Provider Global

Tender Joints

Measure Selection Process

Truth

Discrimination

Feasibility

Continuous composite measure for clinical practice (point-of-care)

OMERACT* Filter

Truth

Discrimination

Feasibility

Composite Disease Activity Measures in Rheumatoid Arthritis

HAQ = Pain + Patient Global + PCS
HAQ II = Pain + Patient Global + PCS II
MHAQ = Pain + Patient Global + RAPID 3

Provider Global

Tender Joints

Swollen Joints

Provider Global

Lab Data

ESR or CRP

Implementation

Letting It Happen

• Professional societies developing tools
• Clinical decision support tools are developed within health information systems
• External regulatory agencies developing incentives and/or penalties

Making it Happen

Organizations or practices make a commitment to implementation

Routine Assessment of Patient Index Data 3 (RAPID 3)

1. Please check (X) the ONE best answer for your abilities at this time:

<table>
<thead>
<tr>
<th>OVER THE LAST WEEK, were you able to:</th>
<th>Without ANY Difficulty</th>
<th>WITH SOME Difficulty</th>
<th>WITH MUCH Difficulty</th>
<th>UNABLE to Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dress yourself, including tying shoelaces and doing button?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Get in and out of bed?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Lift a half pound of a object?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Walk outdoors on flat ground?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Wash and dry your entire body?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Bend down to pick up clothing from the floor?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Turn regular faucets on and off?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Get in and out of a car, bus, train, or airplane?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Participate in recreational activities and sports as you would like, if you wish?</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

2. How much pain have you had because of your condition OVER THE PAST WEEK? Please indicate below how severe your pain has been:

<table>
<thead>
<tr>
<th>Pain</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

3. Considering all the ways in which illness and health conditions may affect you at this time, please indicate below how you are doing:

<table>
<thead>
<tr>
<th>Very Well</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

How to Score the RAPID 3

<table>
<thead>
<tr>
<th>Variable</th>
<th>Range</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean score for Physical Function (0-10)</td>
<td>(0-10)</td>
<td></td>
</tr>
<tr>
<td>Patient Pain Score</td>
<td>(0-10)</td>
<td></td>
</tr>
<tr>
<td>Patient global score</td>
<td>(0-10)</td>
<td></td>
</tr>
<tr>
<td>Add the above values to obtain the raw score</td>
<td>(0-30)</td>
<td></td>
</tr>
<tr>
<td>Divide the raw score by 3 to calculate the RAPID 3 score</td>
<td>(0-10)</td>
<td></td>
</tr>
</tbody>
</table>

RAPID 3 Score Interpretation

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 1</td>
<td>Remission</td>
</tr>
<tr>
<td>&gt; 1.0 - 2.0</td>
<td>Low Activity</td>
</tr>
<tr>
<td>&gt; 2.0 - 4.0</td>
<td>Moderate Activity</td>
</tr>
<tr>
<td>&gt; 4.0 - 10</td>
<td>High Activity</td>
</tr>
</tbody>
</table>
Clinical Disease Activity Index (CDAI)

<table>
<thead>
<tr>
<th>Joint</th>
<th>Left</th>
<th>Right</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tender</td>
<td>Swollen</td>
<td>Tender</td>
</tr>
<tr>
<td>Shoulder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elbow</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MCP 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MCP 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MCP 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MCP 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MCP 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PIP 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PIP 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PIP 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PIP 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PIP 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nails</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Process Improvements in Rheumatoid Arthritis Management

• Disease Activity Score

Manage the Target (treat to low disease activity or remission)

Design rapid treatment escalation

Design rapid treatment escalation

Drive non-essential work away from the rheumatologist

Protocol Driven Care: Nurse

<table>
<thead>
<tr>
<th>Dose</th>
<th>Labs</th>
<th>Side Effects</th>
<th>Rapid 3 score</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methotrexate 12.5 mg weekly for 4 weeks</td>
<td>Normal</td>
<td>None</td>
<td>High</td>
<td>Escalate dose to 15 mg</td>
</tr>
<tr>
<td>Methotrexate 15 mg weekly for 4 weeks</td>
<td>Normal</td>
<td>None</td>
<td>Moderate</td>
<td>Escalate dose to 17.5 mg</td>
</tr>
<tr>
<td>Methotrexate 17.5 mg weekly for 4 weeks</td>
<td>Normal</td>
<td>None</td>
<td>Low</td>
<td>Keep dose at 17.5 mg and schedule MD follow up</td>
</tr>
</tbody>
</table>
Protocol Driven Care: Nurse

<table>
<thead>
<tr>
<th>Dose</th>
<th>Labs</th>
<th>Side Effects</th>
<th>Rapid 3 score</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methotrexate 12.5 mg weekly for 4 weeks</td>
<td>Normal</td>
<td>Yes (nausea)</td>
<td>High</td>
<td>Same day MD visit</td>
</tr>
<tr>
<td>Methotrexate 15 mg weekly for 4 weeks</td>
<td>LFTs &gt; ULN</td>
<td>None</td>
<td>Moderate</td>
<td>Hold methotrexate, same week MD visit</td>
</tr>
<tr>
<td>Methotrexate 17.5 mg weekly</td>
<td>Normal</td>
<td>None</td>
<td>Moderate</td>
<td>Keep dose at 17.5 mg and schedule MD follow up in 2 weeks</td>
</tr>
</tbody>
</table>

The Nurse as the “RA Metrologist”

- RA questionnaire
- tender and swollen joint count, global assessment, disease activity score
- review the information and adjust therapy as needed
- MD

Patient Driven Care

- Start Methotrexate 7.5 mg
- Get Blood Tests
- Review Results Online
- Message Clinic, Answer Questionnaire, Adjust treatment

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Population Management

- Improving individual care
- Improving population care
- Long-term tracking of the individual patient
- Identify outliers
  - High disease activity scores
  - Disease activity never measured

Summary

- Treat to target in rheumatoid arthritis is a useful strategy to achieve the goals of therapy – i.e. remission or low disease activity
- Implementation is complex and is often a clinic microenvironment systems issue
- Choose a measure that fits in with your clinical workflow
- Drive patient care using the measure to improve patient outcomes