Clinical and Experimental RHEUMATOLOGY

Supplement: Quantitative Clinical Assessment of Rheumatic Diseases

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Multiple Choice Questions

I.a.
Complexities in quantitative assessment of patients with rheumatic diseases in clinical trials and clinical care – *T. Pincus & T. Sokka*

1. A major problem in quantitative assessment of all rheumatic diseases is:
   a. Asingle gold standard blood test is not available to assess and monitor patient status in any rheumatic disease
   b. Many people with positive laboratory tests do not have a disease
   c. Most rheumatologists do not perform quantitative formal joint counts in most patients with rheumatoid arthritis
   d. All of the above

2. The most significant measure in predicting work disability and premature mortality in patients with rheumatoid arthritis in comprehensive published reports of long-term outcomes is:
   a. Rheumatoid factor
   b. Radiographic score
   c. Patient questionnaire physical function score
   d. Patient questionnaire pain score

3. Different clinical indices to assess disease activity or organ damage have been developed for each of the following rheumatic diseases except:
   a. Systemic lupus erythematosus
   b. Ankylosing spondylitis
   c. Rheumatoid arthritis
   d. Vasculitis

I.b.
OMERACT: An international initiative to improve outcome measurements in rheumatology – *M. Boers, P. Brooks, L.S. Simon, V. Strand & P. Tugwell*

1. The term "OMERACT" stands for:
   a. Outstanding measures of rheumatoid arthritis clinical therapies
   b. Omnibus methods for rheumatology clinical trials
   c. Outcome measures in rheumatoid arthritis clinical trials
   d. Open meetings to evaluate rheumatoid arthritis care and therapy.

2. The first OMERACT meeting was held in:
   a. The Netherlands in 1992
   b. Switzerland in 1985
   c. The Netherlands in 1982
   d. Canada in 1988

3. OMERACT meetings have addressed assessment of which disease:
   a. Osteoarthritis
   b. Osteoporosis
   c. Ankylosing spondylitis
   d. All of the above

II.a.
The Health Assessment Questionnaire (HAQ) – *B. Bruce & J.F. Fries*

1. Which is the most accurate statement about the Full HAQ?
   a. The Full HAQ is available in more than 60 languages, whereas the Short HAQ is available only for English-speaking patients
   b. The Full HAQ contains only the HAQ disability index and pain and global visual analog scales
   c. The Full HAQ gathers data on all five dimensions of health outcome, as well as demographics, and lifestyle and health behaviors
   d. The Full HAQ is a scannable version of the HAQ that assesses only physical abilities, health behaviors and pain

2. Studies of patient-centered health values have tended to yield data indicating that:
- **a.** Patients are concerned only about their functional status, their pain and their overall health
- **b.** Patients feel physicians are more able to determine their needs and values than they are
- **c.** Patients want to avoid disability, be free of pain and discomfort, avoid medication side effects, keep their medical costs low, and postpone death
- **d.** Patient-reported outcomes are meaningless

3. The HAQ disability index (HAQ-DI):
- **a.** Assesses a patient's overall health status
- **b.** Evaluates physical function by including items that assess fine movements of the upper extremity, locomotor activities of the lower extremity, and activities that involve both upper and lower extremities
- **c.** Is comprised of 10 items organized into 8 categories
- **d.** All of the above

II.b.

Development of a multi-dimensional health assessment questionnaire (MDHAQ) for the infrastructure of standard clinical care – *T. Pincus, Y. Yazici & M. Bergman*

1. The primary goal in development of the MDHAQ was:
- **a.** Greater reliability than the standard HAQ
- **b.** Higher correlations with joint counts than the HAQ
- **c.** Greater capacity than the HAQ to distinguish active from control treatment in clinical trials
- **d.** Greater ease than the HAQ to review ("eyeball") and score in standard clinical practice

2. The MDHAQ includes information not available on the HAQ, MHAQ, or HAQII concerning:
- **a.** Employment and work status
- **b.** History of comorbidities
- **c.** Complex activities of daily living, such as walking 2 miles or 3 km, and participating in recreation and sports
- **d.** Scores for self-efficacy in clinical treatment

3. The "constant region" found on all versions of the MDHAQ includes:
- **a.** Scores for physical function, pain, and patient global status
- **b.** Scores for physical function, fatigue and helplessness
- **c.** Self-report joint count
- **d.** The disease activity score (DAS)

II.c.

Why the HAQ-II can be an effective substitute for the HAQ – *F. Wolfe*

1. The HAQ-II is distinguished from the HAQ and MDHAQ by:
- **a.** Inclusion of a depression scale
- **b.** Improved scaling properties as a good "ruler"
- **c.** More commonly performed activities of daily living
- **d.** Helplessness scale

2. The HAQ-II and MDHAQ differ from the HAQ by having:
- **a.** 10 activities of daily living instead of 25
- **b.** 8 activities of daily living instead of 20
- **c.** 10 activities of daily living instead of 20
- **d.** 8 activities of daily living instead of 25

3. With respect to sensitivity to change in clinical trials, the HAQ-II, MDHAQ, and HAQ are characterized by:
- **a.** The HAQ-II is substantially more sensitive
- **b.** The HAQ is substantially more sensitive
- **c.** The MDHAQ is substantially more sensitive
- **d.** All 3 performed similarly

II.d.
Measuring functional disability in early rheumatoid arthritis: The validity, reliability and responsiveness of the Recent-Onset Arthritis Disability (ROAD) index – *F. Salaffi, A. Stancati, R. Neri, W. Grassi, S. Bombardieri*

1. The ROAD questionnaire includes 4 scores, all except one below:
   a. Upper extremity function score
   b. Lower extremity function score
   c. Activities of daily living/work score
   d. Pain score

2. Which one of these activities is found on the ROAD and not the HAQ (the others are found on both questionnaires)?:
   a. Accept a hand shake
   b. Open jars which have been previously opened
   c. Reach up and take down a 2 Kg object from above your head
   d. Walk on flat ground

3. ROAD scores are correlated significantly with all these other measures except :
   a. Pain scores
   b. Joint swelling score
   c. Disease activity score (DAS)
   d. C-reactive protein

II.e.
The consequences of rheumatoid arthritis: Quality of life measures in the individual patient – *L. Pollard, E.H. Choy & D.L. Scott*

1. The physical health score (PHS) is composed of four subscales on the Short-form 36 (SF-36) including all but which one:
   a. Physical function
   b. Role-physical
   c. Bodily pain
   d. Vitality

2. A major advantage of the SF-36 compared to the HAQ in studies of rheumatic diseases involves:
   a. The SF-36 is more sensitive than the HAQ in clinical trials
   b. The SF-36 is correlated at higher levels than the HAQ with the joint count
   c. The SF-36 is used in research concerning many other diseases, allowing possible comparisons to rheumatic diseases
   d. The SF-36 is more easily completed by patients than the HAQ

3. The Nottingham health profile has six subscales, not including one of those listed below:
   a. Pain
   b. Employment activities
   c. Sleep
   d. Emotional status

II.f.
The promise of PROMIS: Using item response theory to improve assessment of patient-reported outcomes – *B. Bruce, J. Fries & D. Cella*

1. C.A.T. stands for:
   a. Challenging Astronomical Technologies
   b. Computerized Adaptive Testing
   c. A small feline
   d. Computational Advancement of Testing

2. Aims of PROMIS include:
- **a.** Helping to set up standardized and universal questionnaire mailing systems for the NIH
- **b.** Insuring that everyone in the NIH Roadmap keeps their word
- **c.** Development of large item banks and improved items which are meaningful, precise, and which permit smaller sample sizes in clinical trials while retaining the same statistical power
- **d.** All of the above

3. IRT:
- **a.** Stands for the institutional review test.
- **b.** Are measurement models that will help transition conventional health status assessment into an era of item banking and computerized adaptive testing (CAT)
- **c.** Is an acronym for item response theory
- **d.** Both b and c

III.a.
Quantitative joint assessment in rheumatoid arthritis – *T. Sokka & T. Pincus*

1. The minimum number of joints in a widely accepted joint count is:
- **a.** 42
- **b.** 36
- **c.** 28
- **d.** 18

2. Which of the following statements is true concerning joint findings 5 years after baseline associated with traditional treatment for rheumatoid arthritis:
- **a.** Tenderness, swelling, and limited motion are all worse 5 years after baseline
- **b.** Swelling is better, while tenderness and limited motion are worse 5 years after baseline
- **c.** Tenderness and swelling are better, while limited motion is worse 5 years after baseline
- **d.** Tenderness, swelling, and limited motion are all better 5 years after baseline

3. A patient self-report count of painful joints is known as:
- **a.** Ritchie index
- **b.** Lansbury index
- **c.** Arthritis impact measurement scales (AIMS)
- **d.** Rheumatoid arthritis disease activity index (RADAI)

III.b.
Radiographic progression in rheumatoid arthritis – *R. Landewé & D. van der Heijde*

1. The van der Heijde modification of the Sharp radiographic score adds radiographs of which joints to those of the hands:
- **a.** Knees
- **b.** Feet
- **c.** Knees and feet
- **d.** Hips and knees

2. The maximum possible total Sharp/van der Heijde radiographic score includes:
- **a.** 100 units for erosion and 100 units for joint space narrowing= 200 units total
- **b.** 180 units for erosion and 100 units for joint space narrowing= 280 units total
- **c.** 200 units for erosion and 100 units for joint space narrowing= 300 units total
- **d.** 280 units for erosion and 168 units for joint space narrowing= 448 units total

3. ASimplified Erosion and Narrowing Score ("SENS"), designed for standard clinical care differs from more detailed methods by:
- **a.** Scoring only certain joints in the hands
- **b.** Scoring only certain joints in the feet
- **c.** Scoring only certain joints in the hands and feet
- **d.** Scoring joints as simply abnormal or normal rather than graded scores

III.c.
The use of second generation anti-CCP antibody (anti-CCP2) testing in rheumatoid arthritis: A systematic review
J.P. Riedemann, S. Muñoz & A. Kavanaugh

1. The diagnostic properties of anti-CCP2 antibodies in the diagnosis of rheumatoid arthritis include:
a. High sensitivity and specificity in all individuals with RA
b. The sensitivity is low but specificity is high in most patients
c. Both sensitivity and specificity are rather low
d. Sensitivity is high only in individuals with established RA
e. A positive result is always indicative of RA

2. In a patient with undifferentiated polyarthritis, what is a rational interpretation of a positive anti-CCP2 result?
a. It always means that the patient has RA
b. It is highly likely that the individual either has or will develop RA
c. Since the sensitivity in these patients is rather low, it would be best to repeat the test
d. Most likely, the patient has psoriatic arthritis
e. The meaning of the result depends on the results of a test for rheumatoid factor

3. In patients with established RA, what might be the usefulness of a positive anti-CCP2 antibody?
a. Immediately discards any overlap with other rheumatic diseases
b. High titres of the test are associated with higher risk of radiological damage
c. The presence of anti-CCP2 antibodies is associated with progressive radiological damage
d. It is the best predictor of future disability
e. It is associated with poor response to conventional DMARD treatment

III.d.
Assessment of pain in rheumatic diseases – *T. Sokka*

1. Pain is most commonly measured in clinical trials in rheumatology according to:
a. Melzack Pain Index
b. Visual Analog Scale
c. Short Form 36 (SF36)
d. Dolorimeter

2. The ratio of pain scores to physical function scores in fibromyalgia and RAis characterized by:
a. A high ratio is rarely seen in fibromyalgia or RA
b. A high ratio indicates a higher likelihood of fibromyalgia versus RA
c. A low ratio indicates a higher likelihood of fibromyalgia versus RA
d. Is not of value in distinguishing fibromyalgia from RA

3. In the US National Health and Nutrition Examination Survey (NHANES1), what proportion of people who had stage 3 or 4 osteoarthritis of the knee did not report any pain:
a. 20%
b. 30%
c. 40%
d. 50%

III.e.
Rheumatology function tests: Physical measures of functional status to predict mortality in rheumatoid arthritis – *T. Pincus*

1. Apossible advantage of physical measures such as grip strength and walking time compared to patient questionnaires to assess functional status of patients with rheumatoid arthritis is:
a. Physical measures are assessed by a health professional and therefore more accurate
b. Physical measures do not incorporate as many sociocultural biases as patient questionnaires
c. Physical measures require less time than patient questionnaires
d. Physical measures are included in the ACR Core Data Set

2. The following measures have been found to be significant predictors of mortality over 5-15 years in rheumatoid arthritis:
a. Grip strength
b. Walking time
c. Button test
d. All of the above

3. The inter-observer reliability when physical measures such as grip strength and walking time are performed according to a standard protocol is statistically significant and involves correlations at r values of:
a. 0.35
b. 0.50
c. 0.65
d. 0.80

III.f.
Laboratory monitoring of biological therapies – *J.J. Cush & Y. Yazici*

1. Which one of the following is the most frequent serious adverse event reported with TNF inhibitor use?
a. Tuberculosis
b. Lymphoma
c. Congestive heart failure
d. Hepatic failure

2. What percentage of rheumatologists surveyed (n=1021) report that they place a PPD before starting a TNF inhibitor?
a. 21
b. 39
c. 59
d. 77

3. What 3 measures do United States rheumatologists most commonly monitor before starting TNF inhibitors in RA patients?
a. CBC, ESR, CRP
b. PPD, ESR, HAQ
c. Physician overall assessment, CBC, ESR
d. ESR, DAS score, CBC

IV.a.
The Disease Activity Score and the EULAR response criteria – *J. Fransen & P.L.C.M. van Riel*

1. The disease activity score (DAS) includes all of the following measures except:
a. Swollen joint count
b. Tender joint count
c. Health assessment questionnaire (HAQ)
d. Patient assessment of global health

2. The disease activity score (DAS) indicating severe disease is generally regarded as:
a. > 6.2
b. > 5.1
c. > 4.0
d. > 3.5

3. The disease activity score (DAS) indicating low disease activity is interpreted as:
a. < 1.2
b. < 1.8
c. < 2.6
d. < 3.2

IV.b.
The Simplified Disease Activity Index (SDAI) and the Clinical Disease Activity Index (CDAI): Areview of their usefulness and validity in rheumatoid arthritis – *D. Aletaha & J.S. Smolen*

1. The Simplified Disease Activity Index (SDAI) is the numerical sum of:
a. Swollen joint count, tender joint count, patient pain assessment, physician global assessment and CRP
b. Swollen joint count, tender joint count, patient global assessment, physician global assessment and CRP
c. Swollen joint count, tender joint count, patient global assessment, physician global assessment and ESR
d. Swollen joint count, tender joint count, health assessment questionnaire (HAQ) and CRP

2. Clinical Disease Activity Index (CDAI) differs from the Simplified Disease Activity Index (SDAI) in not including:
a. Tender joint count
b. HAQ score
c. CRP
d. All of the above

3. The index which would allow for the highest number of swollen joints in identifying patients who are thought to be in remission is:
a. The CDAI
b. The DAS28
c. ACR-N
d. The SDAI

IV.c.
The American College of Rheumatology (ACR) Core Data Set and derivative "patient-only" indices to assess rheumatoid arthritis – *T. Pincus*

1. The seven measures in the ACR Core Data Set include all of the following except:
a. Patient estimate of global status
b. Patient pain score
c. Erythrocyte sedimentation rate (ESR) or C-reactive protein (CRP)
d. Grip strength

2. Analyses of the relative efficiency of individual ACR Core Data Set measures compared to tender joint count indicated that:
a. Patient global had higher relative efficiency
b. Swollen joint count had higher relative efficiency
c. ESR had higher relative efficiency
d. All of the above

3. Acontinuous index of only the three patient measures in the Core Data Set, i.e. physical function, pain, and patient global, compared to the ACR-20 in clinical trials:
a. Gives significantly poorer results than the ACR-20 and DAS
b. Gives similar results to the ACR-20 but poorer than DAS
c. Gives similar results to ACR-20 and to DAS
d. Gives poorer results than the ACR-20 but similar to DAS

IV.d.
A 3-page standard protocol to evaluate rheumatoid arthritis (SPERA): Efficient capture of essential data for clinical trials and observational studies – *T. Pincus*

1. The five core domains listed in a consensus for long-term observational studies by the outcome measures in rheumatoid arthritis clinical trials (OMERACT) conference include:
a. Health status, disease process, joint replacement surgeries, costs, and employment
b. Health status, disease process, damage, mortality, toxicity/adverse reactions
c. Costs, joint replacement, disease process, mortality, psychological distress
d. Psychological distress, damage, joint replacement, disease process, toxicity/adverse reactions

2. Aproposed standard protocol to evaluate rheumatoid arthritis (SPERA) includes collection of which of the following information at baseline:
a. Immunoglobulin levels
b. Comorbidities
c. Beck depression inventory
d. SF-36

3. An advantage of a proposed standard protocol to evaluate rheumatoid arthritis (SPERA) would include:
a. Identification of which patients require assessment using anti-CCP
b. Identification of patients who are candidates for joint replacement surgery
c. Recognition of extraarticular disease
d. Recognition of which patients will require biologic therapies

V.a.
Assessment of systemic lupus erythematosus – *G. Lam & M. Petri*

1. Assessment of SLE renal disease activity and damage is best performed by:
a. Comprehensive urinalysis
b. 24 hour urine collection for protein
c. Renal biopsy
d. Urine protein-to-creatinine ratio

2. In SLE patients, overall health status most strongly correlates with:
a. Psychosocial factors and fibromyalgia
b. Disease activity
c. Organ damage
d. Age

3. Limitations to the current ACR Criteria for the classification of SLE include:
a. Over-representation of cutaneous manifestations of lupus
b. Lack of cross-cultural and ethnic validation
c. Decreased sensitivity for early disease
d. All of the above

V.b.
Assessment of ankylosing spondylitis – *J. Zochling & J. Braun*

1. The ASAS core set for clinical record keeping does not include:
a. Spinal pain
b. Spinal mobility
c. Acute phase reactants
d. Physical function
e. Spinal x-ray

2. In clinical practice, the most useful single measure of patient status is thought to be:
a. Spinal pain
b. Duration of morning stiffness
c. Patient global assessment
d. ESR
e. Radiological change in the spine

3. Elevation of acute phase reactants (ESR, CRP) is a sensitive indicator of:
a. Spinal inflammation
b. Peripheral joint inflammation
c. Poor prognosis
d. Disease progression
e. Spinal stiffness

V.c.
The assessment of disease activity and outcomes in psoriatic arthritis – *A. Kavanaugh & S. Cassell*

1. Assessing clinical outcomes in psoriatic arthritis is challenging because:
a. No good treatments are available for psoriatic arthritis
b. All patients with psoriatic arthritis have similar disease manifestations
c. No outcome measures have been shown to be reliable in psoriatic arthritis
d. It is a multi-faceted disease

2. Components of the Disease Activity Score (DAS) used in psoriatic arthritis include all of the following except:
a. Swollen joint count
b. Psoriasis Area and Severity Index (PASI)
c. Patient global assessment of arthritis
d. Inflammatory markers (CRP or ESR)

3. Important features of disease activity to assess in psoriatic arthritis can include:
a. Skin disease
b. Peripheral arthritis
c. Enthesopathy
d. All of the above

V.d.
The WOMAC Knee and Hip OAIndices: Development, validation, globalization and influence on the development of the AUSCAN Hand OA Indices – *N. Bellamy*

1. The Western Ontario and McMaster (WOMAC) Osteoarthritis Index questionnaire was developed initially from:
a. An OMERACT consensus conference
b. A thesis of an individual
c. The Osteoarthritis Research Society (OARS)
d. The ARAMIS national database

2. In the original version of the WOMAC scales for all of the following performed well, except for:
a. Pain
b. Stiffness
c. Physical
d. Social

3. The following formats have been used effectively for WOMAC scoring:
a. 5-point Likert scale
b. Visual analog scales
c. 5-point pictorial scale
d. 11-point numerical rating scale

V.e.
The Fibromyalgia Impact Questionnaire (FIQ): A review of its development, current version, operating characteristics and uses – *R. Bennett*

1. How many questions are incorporated into the FIQ?
a. 10
b. 15
c. 20
d. 30

2. Some previous versions of the FIQ have omitted questions 3 and 4 and employed a maximum possible FIQ score 80. What is the current recommendation regarding the recording of the total FIQ score in such a case?
a. Adjust the final score by a multiplication factor of 1.25
b. Adjust the final score by a division factor of 1.25
c. Add 20 to the score
d. Make no adjustment

3. Which of the following statements are correct:
a. There is a significant correlation between higher FIQ scores and work related disability
b. There is no significant correlation between higher FIQ scores and psychological distress
c. Patients with chronic pain problems, other than fibromyalgia, seldom report a FIQ score >50
d. The FIQ is a subset of the health assessment questionnaire (HAQ)

VI.a.
The Arthritis, Rheumatism and Aging Medical Information System (ARAMIS): Still young at 30 years – *B. Bruce & J.F. Fries*

1. ARAMIS was one of the first:
a. Computerized data banks
b. National chronic disease data bank systems
c. Longitudinal studies to be done
d. All of the above
e. a and b only

2. ARAMIS patient data come from:
a. A random sampling of about 14,000 rheumatic disease patients
b. Consecutively enrolled rheumatic disease patients
c. Patients in the United States only
d. All of the above

3. ARAMIS has made significant contributions to a paradigm shift in:
a. Use of scannable HAQs to streamline data collection
b. Patient enrollment methods
c. Measurement of patient outcomes
d. Methods of mortality assessment

VI.b.
Abrief introduction to the National Databank for Rheumatic Diseases – *F. Wolfe*

1. The National Databank of Rheumatic Diseases founded in 1998 currently includes approximately how many patients?
a. 8,000
b. 14,000
c. 28,000
d. 48,000

2. The National Databank (NDB) estimates for prevalence of diarrhea in 6,011 users of Leflunomide was approximately:
a. 7%
b. 12%
c. 17%
d. 27%

3. Features of the National Databank practices include:
a. Routine validation of the work of assessors and interviewers
b. Routine contact with patients who do not return questionnaires or withdraw from study
c. Annual searches of the national death index for patients who have not returned questionnaires
d. All of the above

VI.c.
The CORRONA Database – *J. Kremer*

1. All of the following favor the adoption of an Internet based database:
a. Almost universal electronic centered technology in rheumatologists' offices
b. Increased need to monitor outcomes of newly approved agents
c. Billing documentation
d. The need to document quality
e. All of the above

2. The CORRONAdatabase is:
a. Run by industry
b. Run by a group of independent rheumatologist/clinical investigators
c. Subject to industry veto over its chosen research activities
d. Now the largest independent database in the world in rheumatology which collects data at the time of a clinical encounter from both rheumatologists and patients
e. b and d are correct

3. The following can be calculated from the CORRONA database:
a. SLEDAI, BILAG
b. Modified Sharp scores, SF-36
c. ACR 20,50 and 70, DAS 28
d. Folate index
e. Psoriasis skin score

VI.d.
An Early Rheumatoid Arthritis Treatment Evaluation Registry (ERATER) in the United States –
T. Sokka & T. Pincus

1. One relatively unusual feature of an Early Rheumatoid Arthritis Treatment Evaluation Registry in US is:
a. Inclusion of joint counts
b. Inclusion of all patients with early RA regardless of therapies
c. SF-36 questionnaire
d. All of the above

2. In the ERATER US Early Arthritis Database approximately what proportion of patients took methotrexate as their first DMARD?
a. 20%
b. 40%
c. 60%
d. 80%

3. In the ERATER database what proportion of patients met the criterion of eligibility for the Early Rheumatoid Arthritis (ERA) clinical trial of etanercept versus methotrexate?
a. 20%
b. 30%
c. 40%
d. 50%
e. 60%

VI.e.
Adatabase in private practice: The Brooklyn Outcomes of Arthritis Rheumatology Database (BOARD) – *Y. Yazici*

1. The Brooklyn Outcomes of Arthritis in Rheumatology Database is designed to include:
a. Patients with rheumatoid arthritis
b. Patients with inflammatory rheumatic diseases
c. Patients with rheumatoid arthritis, osteoarthritis, and fibromyalgia
d. All patients seen in a private rheumatology practice setting

2. Analysis of pain scores in the BOARD database indicated that the highest levels were seen in:
- **a.** Hispanic patients
- **b.** African-American patients
- **c.** Caucasian patients
- **d.** Asian patients

3. One unique feature in monitoring patients on the questionnaire for the BOARD includes:
- **a.** Beck depression inventory
- **b.** SF-36 questionnaire
- **c.** Physician's note with physician's global on the same page as the patient questionnaire
- **d.** Self-report joint count

VI.f.

ANorwegian DMARD register: The prescription of DMARDs and biological agents to patients with inflammatory rheumatic diseases – *T.K. Kvien, M.S. Heiberg, E. Lie, C. Kaufmann, K. Mikkelsen, B.-Y. Nordvåg & E. Rødevand*

1. Among 4,683 patients entered into the Norway DMARD Registry (NOR-DMARD), approximately what percent had rheumatoid arthritis?
- **a.** 48%
- **b.** 58%
- **c.** 68%
- **d.** 78%

2. Approximately what proportion of the NOR-DMARD registry had unspecified arthritis?
- **a.** 5%
- **b.** 10%
- **c.** 15%
- **d.** 25%

3. The most frequently prescribed disease-modifying anti-rheumatic drug in NOR-DMARD was:
- **a.** Methotrexate
- **b.** Etanercept
- **c.** Infliximab
- **d.** Anakinra
- **e.** Adalimumab

VI.g.

Rheumatoid arthritis registries in Sweden – *R.F. van Vollenhoven & J. Askling*

1. Which is the main difference between a randomized trial and an observational study?
- **a.** Randomized trials deal with effects, observational studies with side-effects
- **b.** Randomized trials have guaranteed validity, while observational studies do not
- **c.** Treatment is allocated by chance in randomized trials and by the treating physicians'choice in observational studies
- **d.** Observational studies deal with selected populations, which limit their generalizability

2. The Swedish registry ARTIS is:
- **a.** An inception cohort
- **b.** Asystem for voluntary adverse-event reporting
- **c.** Aregistry for patients who take biologic agents
- **d.** Along-term clinical trial

3. The Swedish biologics registries have provided data showing:
- **a.** An increased risk of solid tumors with biologic treatments
- **b.** Superiority of biologics over traditional DMARDs
- **c.** Atemporal trend to treating patients with lesser active disease with biologicals
- **d.** Atemporal trend to treating patients with lesser functional impairment with biologicals

VI.h.
Rheumatoid arthritis databases in Finland – *T. Sokka*

1. The primary outcome in the FIN-RACo clinical trial in rheumatoid arthritis was:
a. ACR-20
b. ACR-50
c. DAS less than 2.8
d. Remission including no tender or swollen joints, pain, morning stiffness, or elevated sedimentation rate

2. The prevalence of remission in the three groups receiving combination therapy, monotherapy within four months of presentation, and monotherapy after four months of presentation was:
a. 37%, 35%, and 11% in the three groups respectively
b. 24%, 15%, and 11% in the three groups respectively
c. 22%, 6%, and 2% in the three groups respectively
d. 34%, 18%, 8% in the three groups respectively

3. In mailed surveys to the general population, which of the following predicted a higher likelihood of mortality over 2 years?
a. High levels of functional disability according to the HAQ
b. Morning stiffness
c. Non-response to the questionnaire
d. a and c

VI.i.
DANBIO: Anationwide registry of biological therapies in Denmark – *M.L. Hetland*

1. The Danish DANBIO registry is characterized by:
a. Being nationwide
b. Includes all rheumatologic diagnoses
c. The information technology IT-platform is based on open-source software
d. Monitoring patients across different biological therapies
e. All of the above

2. Data from the DANBIO registry have indicated that:
a. Earlier use of biologic agents in patients with milder disease since these agents were first marketed
b. Registration of adverse events on a routine-based set-up results in a twenty-fold increase in collection of non-serious adverse events
c. Biological therapies result in an increased risk of infection
d. 92% of patients had been taking methotrexate prior to initiation of a biological drug
e. All of the above

3. The high level of participation in the DANBIO registry may be explained in large part by:
a. It is mandatory to report to the registry
b. Systematic return of efficacy data to the rheumatologist
c. Danish rheumatologists have a long tradition of routine-based data collection
d. Rheumatologists are reimbursed for participation