LE RÉFÉRENTIEL MÉTIER DU RHUMATOLOGUE

V1 « courte », Novembre 2010

CFMR

Collège Français des Médecins Rhumatologues

Sommaire

Introduction

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Ce référentiel a été élaboré sous l'égide du Collège français des médecins rhumatologues (CFMR), qui rassemble l'ensemble des composantes professionnelles de la spécialité de rhumatologie. Il était naturel que cette réflexion, émanant initialement du Collège des enseignants (COFER) et de la Société française de rhumatologie (SFR), soit élargie pour tenir compte du métier et des compétences des rhumatologues quels que soient leur pratique professionnelle et leur mode d'exercice. Rappelons le travail important réalisé il y a quelques années par ce groupe de la SFR, sous la conduite de Gérard Chalès et de Jean-Michel Ristori, travail qui a constitué les prémices de la présente réflexion.

L'objectif que nous avons poursuivi est d'informer sur le métier de la spécialité et de contribuer ainsi à le valoriser, mais également de contribuer à élaborer des critères de qualification homogènes pour assurer aux patients une qualité identique de soins sur tout le territoire et constituer une base d'habilitation pour l'ensemble des médecins en formation initiale de la spécialité, pour les médecins demandant à changer de spécialité, pour les médecins étrangers provenant de pays hors Union européenne et d'orienter les cursus de formation initiale et continue.

Ce référentiel a donc été rédigé par un groupe de travail réunissant les différents acteurs de la spécialité (hospitaliers, universitaires, libéraux et rhumatologues en formation), selon une méthodologie commune à l'élaboration des autres référentiels. Il s'est agit dans un premier temps de définir quelques situations cliniques types, les plus fréquemment rencontrées. Le choix de ces situations types n'a pas pour objectif d'être exhaustif, mais représente un socle pour l'évaluation des compétences nécessaires à l'exercice du métier de rhumatologue. Le groupe a ensuite établi les règles de bonne prise en charge sans se limiter à la connaissance purement technique du métier de rhumatologue. Les réflexions initiales ont été amendées par un groupe de lecture et validées par le groupe de travail.

Cette réflexion et la description des situations envisagées placent clairement le métier de rhumatologue à l'interface de multiples autres spécialités et démontre les multiples facettes de la spécialité. Il est ainsi important de l'envisager aussi sous l'angle de la formation initiale. C'est la raison pour laquelle nous avons souhaité que l'Association des rhumatologues en

formation soit associée à l'élaboration de ce référentiel. C'est aussi pourquoi le document présenté ici rappelle les unités de valeur définies par le COFER pour la formation initiale des rhumatologues dans le cadre du DES de rhumatologie, travail très important réalisé il y a quelques années sous l'impulsion de Maxime Dougados, alors président du COFER. Enfin, le contexte international, en particulier européen s'impose de plus en plus à nous et doit être intégré à notre réflexion sur la compétence spécifique d'un médecin spécialiste dont l'exercice pourra être amené à passer les frontières au cours de sa carrière. Les rhumatologues ont travaillé très activement au sein de l'UEMS, sous l'impulsion de Jean Philippe Sanchez associé à Bernard Duquesnoy puis à Frédéric Lioté, ce qui a permis la validation d'un curriculum européen de rhumatologie en 2008, que nous avons aussi souhaité intégrer à ce document socle.

Par essence, ce référentiel est « provisoire », reflet d'une réflexion d'un moment donné sur le métier de rhumatologue et il sera appelé à être actualisé avec les évolutions épidémiologiques, les progrès diagnostiques et thérapeutiques, en plein essor actuellement en rhumatologie. Les rhumatologues doivent adapter leurs pratiques et leurs comportements pour tenir compte de ces évolutions : le référentiel devra donc aussi les intégrer. A l'heure de la mise en place du développement professionnel continu, le référentiel doit devenir un outil de cette démarche qualité et je suis particulièrement heureux de cette coïncidence de la naissance de notre référentiel et de la parution prochaine des décrets instaurant la démarche de DPC.

Ce travail important, mené dans un délai « record », n'aurait pas été possible sans la mobilisation admirable d'un groupe de travail « commando » très motivé et efficace (G. Chalès, B. Gerbay, P. Lebrun, C. Marcelli, P. Monod, JM. Ristori, JP. Sanchez, R. Séror), ni surtout sans l'énergie inépuisable du Président actuel du COFER, Christian Marcelli, qui a su réveiller les troupes et conduire habilement la manœuvre pour mener à bien la rédaction de ce référentiel. Qu'il en soit chaleureusement remercié au nom de toute notre communauté de médecins rhumatologues !

types

1- Rhumatisme inflammatoire débutant

2- Épanchement articulaire aigu

3- Épaule douloureuse

4- Gonarthrose

5- Syndrome fracturaire vertébral récent

6- Lomboradiculalgie persistante

7- Mise en place et surveillance d’une biothérapie

Rhumatisme inflammatoire débutant

Maladie chronique, potentiellement destructrice, nécessitant un avis spécialisé précoce pour mettre en œuvre le plus rapidement possible des mesures thérapeutiques pharmacologiques et non pharmacologiques, une éducation thérapeutique intégrée aux soins, une prise en charge et un suivi pluriprofessionnels.

Evoquer un diagnostic

- En analysant par l'interrogatoire et l'examen physique, chez un adulte ou un enfant, les caractéristiques d'une douleur articulaire et son caractère inflammatoire.
- En recherchant toutes les manifestations extra-articulaires pouvant orienter, le plus précocement possible, vers :
    - un rhumatisme inflammatoire,
    - une connectivite,
    - une vascularite,
    - une pathologie infectieuse ou post-infectieuse,
    - une pathologie néoplasique.

Demander les explorations complémentaires nécessaires et mettre en œuvre certaines d'entre elles

- En prescrivant des examens complémentaires sanguins ou urinaires à visée biologique, immunologique et infectieuse.
- En ponctionnant un épanchement articulaire et en orientant l'analyse du liquide synovial.
- En réalisant, ou en prescrivant, des radiographies ostéo-articulaires et/ou une échographie articulaire ou abarticulaire.
- En demandant, si nécessaire, un scanner et/ou une IRM ostéo-articulaire.
- En demandant d'autres examens complémentaires en fonction des signes extra-articulaires ou des comorbidités.

Etablir un diagnostic

- En interprétant et en faisant la synthèse des données cliniques, biologiques et d'imagerie pour établir un diagnostic de rhumatisme inflammatoire débutant chez un adulte ou un enfant.

Proposer une stratégie thérapeutique en concertation avec le patient

- En décidant et en mettant en œuvre, en accord avec le patient, la stratégie thérapeutique optimale sur la base du diagnostic et du pronostic, en prenant en compte le rapport coût/risque/bénéfice des traitements, en accord avec les référentiels existants.
- En informant et en éduquant le patient vis-à-vis de sa pathologie et des thérapeutiques mises en œuvre, afin de lui permettre de prendre des décisions de façon plus autonome vis-à-vis de sa maladie, de son retentissement psychologique, professionnel et social (qualité de vie).

Planifier le suivi

- En organisant la coordination et la permanence des soins avec le médecin généraliste et les autres professionnels de santé impliqués dans la prise en charge de la pathologie.
- En évaluant la réponse sur les données issues de l'examen clinique et des examens complémentaires et en adaptant régulièrement la stratégie thérapeutique à l'objectif de rémission.

Épanchement articulaire aigu

Urgence diagnostique et thérapeutique, manifestation inaugurale de très nombreuses maladies inflammatoires (en particulier septiques), métaboliques ou systémiques, nécessitant une analyse du liquide articulaire et une prise en charge pluri-professionnelle.

Evoquer le diagnostic

- En s'orientant par l'anamnèse, les caractéristiques et la topographie de la douleur et/ou du gonflement d'origine articulaire
- En recherchant les éléments de gravité et le caractère d'urgence (infection active)
- En identifiant un contexte infectieux par les signes articulaires et extra articulaires permettant d'évoquer une arthrite septique
- En effectuant un examen non seulement locorégional mais aussi général
- En éliminant les diagnostics différentiels d'un épanchement articulaire aigu (bursite, cellulite, abcès, ..)
- En recourant, si besoin, dès cette étape à l'imagerie (échographie notamment pour une articulation profonde)
- En connaissant les spécificités d'un épanchement de l'enfant et de l'adulte

Mettre en œuvre et hiérarchiser les examens para-cliniques selon le degré d'urgence

- En réalisant systématiquement la ponction articulaire avant toute antibiothérapie
- En précisant au biologiste les objectifs de l'analyse du liquide articulaire, et en interprétant les résultats selon le contexte (suspicion d'arthrite septique)
- En prescrivant les examens biologiques et d'imagerie permettant d'assurer le diagnostic étiologique, en particulier infection, arthrite microcristalline, hémarthrose, mécanique et inflammatoire

Etablir un diagnostic

- En connaissant les bonnes pratiques et en faisant une interprétation critique de l'examen du liquide articulaire
- En attribuant une probabilité de diagnostic étiologique dominée par l'arthrite septique

Proposer une stratégie thérapeutique adaptée à la probabilité du diagnostic étiologique

- En décidant d'une hospitalisation orientée (pédiatrie, rhumatologie, orthopédie, réanimation,...)
- En mettant en œuvre un traitement spécifique selon trois aspects: traitement systémique, traitement local et mesures générales
- En organisant une prise en charge rééducative appropriée

Planifier le suivi

- En collaborant avec le médecin traitant et les autres spécialistes selon le diagnostic étiologique

- En évaluant régulièrement l'efficacité du traitement sur la douleur et les paramètres de l'inflammation s'il y a lieu
- En s'assurant de la disparition de l'épanchement articulaire, au besoin à l'aide de l'échographie
- En expliquant au patient le rationnel des mesures thérapeutiques, les éléments pronostiques et le retentissement fonctionnel éventuel (travail, loisirs), ainsi que les symptômes faisant craindre une récidive de l'épanchement

Épaule douloureuse

Pathologie souvent chronique dont la fréquence augmente avec l'âge et chez les patients exposés sur le plan professionnel (2ème cause de maladie professionnelle indemnisée) ou sportif, dont l'origine abarticulaire est la plus fréquente, dont la prise en charge est pluri-professionnelle.

Evoquer un diagnostic

- En vérifiant le caractère aigu ou chronique
- En menant l'interrogatoire sur les circonstances de survenue (spontanée, professionnelle, sportive, traumatique), les antécédents, les caractéristiques des symptômes et signes associés
- En affirmant l'origine des symptômes (distinction entre douleurs articulaires, péri-articulaires, rachidiennes, neurologiques, viscérales)
- En procédant à l'examen clinique local et général (examen programmé de l'épaule, recommandation HAS 2008) : mobilité articulaire, testing tendinomusculaire, examen du rachis cervical, examen neurologique
- En recherchant une atteinte de l'état général ou une atteinte viscérale

Demander ou réaliser les explorations complémentaires

- En hiérarchisant les examens à prescrire ou à réaliser en fonction des données cliniques, des nécessités fonctionnelles et des recommandations professionnelles (HAS 2005)
- En réalisant ou prescrivant des radiographies, une échographie, éventuellement une bursoscopie
- En prescrivant, si nécessaire, d'autres explorations en tenant compte de leur rapport coût/risque/bénéfice : scanners, IRM, avec ou sans arthrographie
- En interprétant ces examens en fonction des données de l'examen clinique

Etablir un diagnostic

- En confrontant les résultats de l'examen clinique et des examens complémentaires
- En identifiant l'origine des symptômes : dégénérative, inflammatoire, infectieuse, tumorale, vasculaire
- En distinguant les pathologies articulaires, abarticulaires, notamment les pathologies de la coiffe des rotateurs, osseuses, neurologiques, viscérales

Proposer une stratégie thérapeutique

- En évaluant le retentissement algofonctionnel des symptômes sur la vie professionnelle et personnelle
- En prenant en charge la douleur par un traitement antalgique par voie générale ou locale (infiltration corticoïde, en respectant les conditions d'asepsie) et en associant des traitements pharmacologiques et non pharmacologiques (physiothérapie antalgique, par exemple) dont le rationnel est expliqué au patient
- En prescrivant, le cas échéant, un traitement étiologique (antibiothérapie, biothérapie, chimiothérapie)
- En prescrivant et surveillant la réadaptation fonctionnelle en collaboration avec le kinésithérapeute
- En enseignant l'auto-rééducation, dont l'auto-mobilisation

- En dialoguant et coopérant avec les autres acteurs, notamment le chirurgien orthopédiste
- En informant et dialoguant avec le patient et sa famille

Planifier le suivi

- En suivant la douleur et l'état médical du patient à l'aide de critères métrologiques validés
- En évaluant régulièrement le retentissement fonctionnel
- En prenant en compte le retentissement sur la situation professionnelle
- En prévenant la récidive
- En optimisant les relations et la communication avec le réseau soignant (médecin traitant et kinésithérapeute en particulier) et, éventuellement, avec le médecin du travail

Gonarthrose

Maladie chronique, première cause d'incapacité fonctionnelle ; importance du diagnostic précoce, des mesures préventives, d'une prise en charge pluriprofessionnelle.

Evoquer le diagnostic

- En interrogeant le patient sur les douleurs du genou, mais aussi de la hanche et du dos, les antécédents traumatiques et chirurgicaux, les activités sportives et la profession

- En réalisant :
- Une analyse de la marche
- Un examen du genou, de la cheville et du pied, de la hanche et du rachis, et un examen neurologique des membres inférieurs
- Une ponction d'un éventuel épanchement articulaire

Demander les explorations complémentaires nécessaires et mettre en œuvre certaines d'entre elles

Pour poser le diagnostic de gonarthrose, en rechercher l'étiologie et éliminer les diagnostics différentiels.

- En réalisant des radiographies comparatives des genoux et du bassin en position debout
- En réalisant, éventuellement, une échographie pour compléter l'examen clinique (cavité articulaire, structures abarticulaires) ou guider une ponction et/ou une infiltration
- En discutant, en deuxième intention, la prescription d'autres examens d'imagerie (IRM, scanner…), selon l'orientation diagnostique
- En prescrivant des examens biologiques complémentaires adaptés

Etablir un diagnostic

A partir de l'ensemble des données recueillies précédemment, y compris dans des situations difficiles (radiographies normales, tableau pseudo-inflammatoire).

Proposer une stratégie thérapeutique négociée avec le patient

- En apprenant au patient à adapter le traitement en cas de poussée douloureuse, selon la gêne fonctionnelle quantifiée par un indice
- En mettant en œuvres des mesures préventives non pharmacologiques (orthèses, rééducation, activité physique)
- En insistant sur les règles hygiéno-diététiques et la prise en charge des comorbidités
- En proposant un traitement étiologique s'il y a lieu
- En recourant aux traitements locaux en fonction des situations cliniques
- En orientant vers un chirurgien orthopédiste pour une chirurgie préventive ou prothétique en fonction du degré de tolérance clinique

- En coordonnant des actions de prise en charge du handicap : intervenants paramédicaux, sociaux…
- En proposant au patient l'intégration à un programme d'éducation thérapeutique

Planifier le suivi
- En surveillant l'efficacité du traitement (quantification de la douleur et de la fonction)
- En surveillant la tolérance des traitements instaurés
- En identifiant une poussée congestive et en adaptant le traitement
- En identifiant si besoin le moment opportun d'un traitement chirurgical

Syndrome fracturaire vertébral récent

Prise en charge urgente d'une fracture vertébrale non traumatique pour évaluer le retentissement neurologique, la possibilité d'une pathologie tumorale, rechercher des complications métaboliques, assurer l'antalgie, mettre en œuvre une thérapeutique locale (rhumatologie interventionnelle) et/ou générale à visée étiologique.

Evoquer un diagnostic
- En tenant compte de la gravité et de la fréquence des pathologies, les hypothèses tumorale et ostéoporotique seront systématiquement envisagées.
- En interrogeant le patient de façon minutieuse pour connaître les antécédents, les prises médicamenteuses et la totalité de l'histoire médicale.
- En examinant le patient de façon complète, en insistant sur l'examen neurologique (risque de compression radiculaire ou médullaire) et l'examen viscéral.

Demander des explorations complémentaires
Imagerie
- En réalisant et analysant des radiographies standard du rachis.
- En prescrivant et interprétant, en fonction des hypothèses diagnostiques : scanner, IRM, scintigraphie osseuse, PET scan, ostéodensitométrie.

Biologie
- En prescrivant et interprétant les examens biologiques suivant : hémogramme, marqueurs inflammatoires, électrophorèse des protéines sériques, paramètres du métabolisme phospho-calcique, 25 hydroxyvitamine D, puis en deuxième intention : marqueurs tumoraux, paramètres hormonaux…

Radiologie interventionnelle
- En discutant la prescription d'une biopsie osseuse, d'une biopsie vertébrale.
- En interprétant les résultats de cette biopsie.

Etablir un diagnostic
- En prenant en compte les éléments diagnostiques cliniques, biologiques et d'imagerie pour :
(a) établir le diagnostic de pathologie tumorale, d'ostéoporose, d'ostéomalacie,
(b) rechercher une cause spécifique : néoplasie primitive, hémopathie maligne en particulier lymphome et myélome, maladie endocrinienne, ostéoporose secondaire ou iatrogène,
(c) évaluer tous les éléments de gravité (hypercalcémie, compression tumorale) pouvant conduire à une prise en charge urgente.

Proposer une stratégie thérapeutique
- En mettant en œuvre un traitement d'urgence pour les complications métaboliques (hypercalcémie) et les complications neurologiques.
- En assurant l'antalgie immédiate du patient puis la reprise progressive de l'autonomie et des activités, en s'aidant si nécessaire de la radiologie interventionnelle (vertébroplastie).
- En planifiant une thérapeutique de fond adaptée à la pathologie causale, en concertation avec le patient et ses proches :

(a) par une prise en charge pluridisciplinaire (RCP) pour les pathologies tumorales et les hémopathies, et une consultation d'annonce médicale et infirmière de la pathologie (en prévoyant les tâches avant, pendant et après l'annonce), portant sur le diagnostic, les possibilités de traitement et le vécu psychologique (demande d'aide éventuelle),
(b) par la mise en œuvre des thérapeutiques visant à lutter contre la fragilité osseuse.

Planifier le suivi
- En transmettant les informations médicales au médecin traitant et aux spécialistes impliqués.
- En assurant la convalescence puis le retour à domicile avec les aides nécessaires.
- En organisant le suivi spécialisé pour évaluer l'efficacité et la tolérance au traitement.

Lomboradiculalgie persistante

Affection fréquente, pouvant être une urgence chirurgicale ; importance du diagnostic précoce, d'un suivi rapproché, d'une prise en charge pluriprofessionnelle.

Evoquer un diagnostic

- En rassemblant les arguments anamnestiques et cliniques en faveur de l'origine neurogène, périphérique et radiculaire de la douleur
- En rassemblant les arguments anamnestiques et cliniques en faveur de l'origine commune de la lomboradiculalgie
- En éliminant les diagnostics différentiels par un examen ostéoarticulaire, neurologique, vasculaire et général
- En recherchant des signes de gravite de la lomboradiculalgie
- En évaluant le contexte professionnel et les facteurs psycho-sociaux

Demander des explorations complémentaires

- En les sélectionnant selon l'orientation diagnostique (osteo-articulaire, neurologique, vasculaire, oncologique …) :
  - Imagerie (radiographies, IRM, scanner, scintigraphie…)
  - Biologie
  - EMG…

Etablir un diagnostic

- En rassemblant les arguments cliniques et complémentaires pour établir un diagnostic étiologique
- En appréciant la gravité de l'atteinte radiculaire (déficit neurologique) et de sa cause (lombo-radiculalgie symptomatique [pathologie tumorale, infectieuse ou traumatique])

Proposer une stratégie thérapeutique négociée avec le patient

- En expliquant la nécessité d'un geste chirurgical en cas d'urgence neurologique
- En proposant et en prescrivant l'ensemble des thérapeutiques médicales adaptées (antalgiques, y compris morphiniques, AINS, injection intra rachidienne de corticoïdes)
- En prenant en compte leur rapport coût/risque/bénéfice
- En donnant au patient une information explicite sur le projet thérapeutique, le pronostic et les signes de gravité
- En proposant une prise en charge pluridisciplinaire (RCP) en cas de pathologie tumorale ou d'hémopathie, et une consultation d'annonce médicale et infirmière de la pathologie (en prévoyant les tâches avant, pendant et après l'annonce), portant sur le diagnostic, les possibilités de traitement et le vécu psychologique (demande d'aide éventuelle)
- En ayant recours à un chirurgien spécialisé dans le rachis en cas d'échec du traitement médical

Planifier le suivi

- En contrôlant régulièrement l'évolution (échelle visuelle de la douleur, examen clinique)

- En informant le médecin traitant du projet thérapeutique et des critères retenus pour le suivi
- En travaillant, si nécessaire, en coopération avec le kinésithérapeute, le médecin rééducateur ou le médecin du travail
- En proposant, en cas d'évolution vers une lombalgie chronique, une rééducation du rachis et, si nécessaire, un reconditionnement à l'effort

Mise en place et surveillance d'une biothérapie

Utilisation de molécules (anticorps monoclonaux, protéines de fusion …) identifiant une cible très spécifique (bloquer une cytokine, neutraliser une cellule, bloquer un mécanisme important de l'inflammation …) permettant d'arrêter l'évolution structurale des rhumatismes inflammatoires ; les effets secondaires potentiels et le coût élevé des biothérapies justifient que soit évalué précisément, pour chaque patient, le rapport bénéfice/risque du traitement.

Valider l'indication

- En confirmant le diagnostic initial et en évaluant l'activité du rhumatisme inflammatoire à l'aide d'instruments validés (cf. référentiels « maladie ») :
    - Examen clinique
    - Biologie
    - Radiographies standard
    - Echographie articulaire
    - IRM
- En confirmant l'indication : maladie active en échec des traitements de fond classiques ou maladie sévère d'emblée

Rechercher cliniquement, radiologiquement et biologiquement des comorbidités et des contre-indications en fonction de la biothérapie envisagée

- Infections chroniques ou latentes, dont la tuberculose
- Cancers solides et hémopathies
- Grossesse
- Insuffisance cardiaque évoluée
- Pathologie démyélinisante

Etablir une stratégie thérapeutique

- En partageant la décision avec les différents intervenants : patient, médecin traitant, rhumatologue hospitalier, rhumatologue libéral
- En faisant un choix raisonné de la biothérapie tenant compte de l'estimation du rapport bénéfice/risque
- En optimisant l'utilisation des traitements adjuvants (traitements de fonds, traitements symptomatiques et traitements locaux)
- En prévoyant de réévaluer régulièrement la stratégie thérapeutique

Informer et éduquer le patient

- Education sur les modalités d'administration, les effets indésirables potentiels et les situations particulières (voyages, soins dentaires, vaccination, chirurgie)
- Contrôle de l'état vaccinal

Définir les modalités de suivi et de surveillance

- En informant le médecin traitant :
    - Sur le projet thérapeutique
    - Sur les actions à mener avant le début du traitement (par exemple, vérification du carnet de vaccination)
    - Sur les éléments de la surveillance au cours du traitement

- En évaluant régulièrement la tolérance : recherche et prise en charge des effets indésirables
- En évaluant régulièrement l'efficacité du traitement ; mesure de l'activité inflammatoire, de la douleur, de la fatigue et de l'évolutivité structurale de la maladie :
    - Examen clinique
    - Radiographies standard
    - Biologie
    - Eventuellement :
        - Echographie articulaire
        - IRM

Les compétences du rhumatologue selon l'Europe

Dans cette version « courte » du référentiel figure ci-après le résumé du texte complet de l'UEMS sous la forme d'un article intitulé :

Competencies in rheumatology: a European framework. Faarvang KL, da Silva JA. *Best Pract Res Clin Rheumatol* 2009;23:145-60.

Les UV du COFER

(objectifs de formation pour le DES de rhumatologie rédigés par les membres du Collège Français des Enseignants en Rhumatologie)

Révision : octobre 2010

Dans cette version « courte » du référentiel figure ci-après la liste des 17 unités de valeur rédigées par le COFER ainsi que, à titre d'exemple, les objectifs de l'UV 1.

La liste complète des objectifs est téléchargeable sur le site du COFER (www.lecofer.org).

Cofer

Titre : Epidémiologie clinique

Contenu : Définitions

Procédure d'évaluation

Définitions

- ❑ Incidence
- ❑ Prévalence
- ❑ Risque relatif
- ❑ Odd Ratio/Hazard ratio
- ❑ Intervalle de confiance
- ❑ Critères d'évaluation
- ❑ Critères d'inclusion et de non inclusion
- ❑ Risque α
- ❑ Puissance d'un test statistique
- ❑ Nombre de sujets nécessaires
- ❑ Connaître la signification d'une évaluation en intention de traiter
- ❑ Connaître le concept « Nombre de patients à traiter »

Procédure d'évaluation

- ❑ Savoir interpréter les résultats d'un essai thérapeutique
- ❑ Savoir discuter la pertinence d'un critère d'évaluation
- ❑ Connaître les différentes sortes de biais
- ❑ Connaître les différentes méthodes statistiques usuelles de comparaison
- ❑ Connaître les différents modèles de courbe de survie et leur comparaison
- ❑ Connaître les limites d'application des tests statistiques usuels
- ❑ Savoir justifier le choix entre tests paramétrique et non paramétrique
- ❑ Connaître les méthodes d'évaluation de la variabilité inter observateur
- ❑ Connaître les différentes caractéristiques d'un système de critères (sensibilité, spécificité, valeur prédictive positive)

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Competencies in rheumatology: a European framework

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The aims, structure, methods and educational experiences employed in the training of rheumatologists vary from one national programme to another, according to traditions, rules and resources. Mutual recognition of titles, the free movement of labour and the striving towards for high-quality standards in medical care in Europe demand that efforts and progress are made to ensure that similar competencies are achieved by different programmes. The European Rheumatology Curriculum Framework, developed by the European Board of Rheumatology, is meant to be a step towards the harmonization of rheumatology specialist training within the European Union, by providing a reference framework to the development and benchmarking of national curricula for the specialist training of rheumatologists. The European Rheumatology Curriculum Framework has now been endorsed by scientific and educational bodies in 17 member countries. It has been provided with a contextualized review of good practice in curriculum planning and development – the European Board of Rheumatology Educational Guide.

The European Board of Rheumatology–UEMS (Union Européenne des Médecins Spécialistes) Section of Rheumatology developed and in 2008 presented, the European Rheumatology Curriculum Framework [1]. This is envisaged as a step towards the harmonization of rheumatology specialist training within the European Union (EU), by providing a reference framework to the development and benchmarking of national curricula for the specialist training of rheumatologists. It represents a major revision of the UEMS Rheumatology Specialist Core Curriculum produced in 2003.

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Here, we present a summary overview of the development, aims and contents of this document.

Do we need a European rheumatology curriculum framework?

In Directive 93/16/EEC of April 1993, the EU has specified that Member States shall ensure that the training leading to a diploma, certificate or other evidence of formal qualifications in specialized medicine meets a number of minimum quality criteria, including duration, content, setting and quality control. No guidelines for the specific content of the training are given. The conditions and regulations under which medicine and rheumatology are practised are extremely variable between different countries, and will remain so. Despite the closer relationships and increasing centralized regulations within the EU, definition of medical curriculum aims, structure and contents remain under the exclusive domain of national authorities.

The harmonization of specialist training in the EU is deemed essential to guarantee similar standards of care and support freedom of movement of medical specialists among member countries in the EU. This requires that both the public and the authorities are reassured that medical specialists coming from different countries hold similar competencies. Furthermore, international discussions around the aims and methods of training are an extremely useful means of highlighting deficiencies in local programmes and of fostering the dissemination of good practice. Guidelines on specialist training provide an important opportunity to increase quality standards on behalf of people with musculoskeletal conditions.

The European Board of Rheumatology holds neither the intent nor the authority to impose a defined curriculum structure, contents or aims to individual countries. The European Rheumatology Curriculum Framework aims solely at providing national authorities and professional bodies involved in the development of curricula for the training of rheumatologists with a comprehensive reference framework of core competencies to be achieved by the end of rheumatology training in the EU. Trainees can use it as a source of reference and benchmarking, for appreciation of their own training standards and source of inspiration to promote positive change where appropriate.

Development process

The European Board of Rheumatology–UEMS Section of Rheumatology is the representative body of rheumatologists within UEMS. Members of the European Board of Rheumatology are appointed by the appropriate professional and scientific national organizations of the speciality in the EU and European Free Trade Association (EFTA) countries in accordance with UEMS rules of procedure. Several countries outside EU and EFTA have associated members and observers in the European Board of Rheumatology. Each member country has two representatives.

One of the statutory purposes for The European Board of Rheumatology is the formulation of a common policy in the field of training aiming at the highest standards of rheumatology medical care in Europe.

Appropriate literature and other sources of information were consulted to synthesize the elements of best educational practice in the scope of this curriculum framework. Based on this work, the Board selected four major documents as the key sources of guiding principles and concepts:

1. The CanMeds Competency Framework [2].
2. The North American framework [3].
3. The British Specialty Training Curriculum for Rheumatology [4].
4. The Danish Curriculum for Rheumatology [5].

A working group was formed within the European Board of Rheumatology to write a first draft of the Curriculum Framework. This included the active participation of a delegate from the Permanent Working Group of Junior Physicians of the EU. Expert educational support was provided by Professor Reg Dennick, Assistant Director of the Medical Education Department of the University of Nottingham, UK.

The draft was circulated for several rounds of remote and live discussion among the Board members and the national professional bodies. Corrections were made in accordance with the comments. The final version, approved on 31 January 2008, has now received endorsement by professional and educational authorities from 17 member countries of the UEMS (Fig. 1) as well as from the Permanent Working Group of European Junior Doctors.

General structure and educational philosophy

Many educational strategies can be adopted successfully for a curriculum in rheumatology. The strategy choice will largely depend on national traditions and resources. On this basis, the Board decided not to provide a formally structured curriculum but rather a framework of competencies to be achieved and assessed. National authorities will have to make a large number of decisions on the specifics of curriculum delivery and evaluation, in order to produce a curriculum plan that is clear, practical, comprehensive and usable by all parts involved.

To promote harmonization and quality, the European Rheumatology Curriculum Framework is provided with a contextualized review of good practice in curriculum planning and development. This has been compiled into a resource document addressing the qualities and limitations of different teaching, learning and assessment methods – the European Board of Rheumatology Educational Guide [6].

Another document – the UEMS Charter on the Training of Rheumatologists in Europe [7] – describes the general requirements for institutions, programmes and supervisors dedicated to the training of rheumatologists in any Member State of the EU. This establishes, among other aspects, the duration of training, the need for quality control and personal coaching, and well the requirement for recognition of training institutions and teachers. The role of trainees as the core drivers of their own education is stressed.

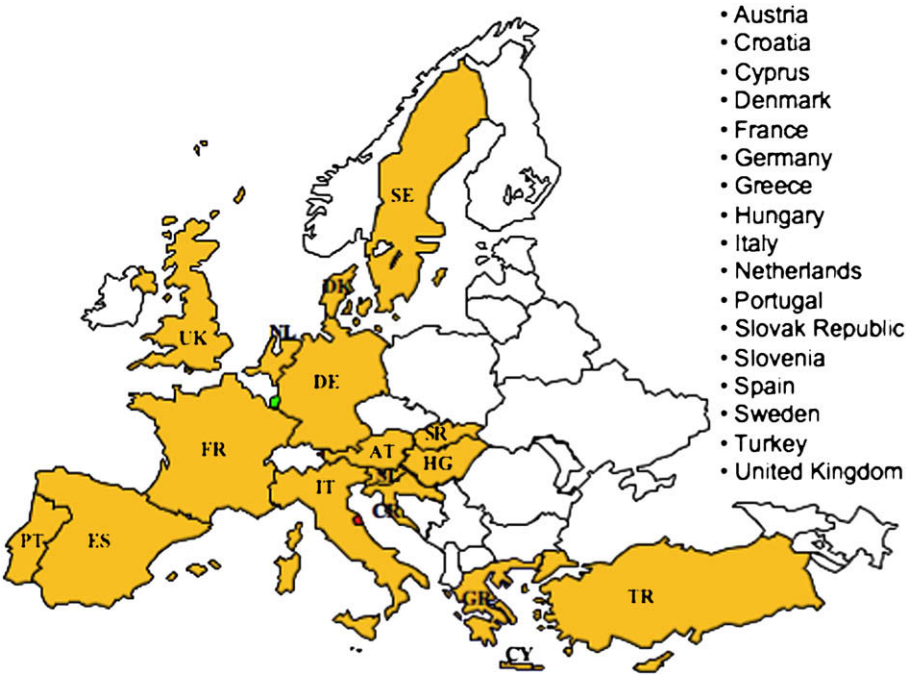

Fig. 1. Endorsement of the European Rheumatology Curriculum Framework, as of October 2008. AT, Austria; CR, Croatia; CY, Cyprus; DE, Germany; DK, Denmark; ES, Spain; FR, France; GR, Greece; HG, Hungary; IT, Italy; NL, Netherlands; PT, Portugal; SE, Sweden; SL, Slovenia; SR, Slovak Republic; TR, Turkey; UK, United Kingdom.

The Curriculum Framework adopts an outcome-based approach[8], moving away from the definition of objectives in terms of knowledge and skills to a definition based around competencies. Competencies are defined as the ability to use knowledge, skills and appropriate attitudes and personal qualities to solve clinical problems in a professional, ethical and proficient way for optimal patient and societal outcomes [9,10].

Competency-based curricula have become, to a large extent, the standard in postgraduate education. However, it is essential that competencies are not treated in a narrow, behaviouristic way but that it is recognized that clinical skills are used as complex, holistic approaches embedded with professional values [11]. The curricula from North America [3], the UK [4] and Denmark [5] are also competency-based curricula.

The Board decided to organize the competencies in agreement with the CanMeds Seven Roles of Physicians (Box 1), as defined by the CanMeds Framework [2]. This was chosen in recognition of its ability to encompass the complex and ever-evolving roles the physician is expected to play in present day medicine. It underlines the need to bring crucial but previously ignored competencies, such as communication and professionalism, to the forefront of medical training objectives. Such competencies need to be fully recognized as central to the medical profession and can no longer be left to unchecked individual determination.

Certainly, the role of Medical Expert will continue to deserve a central place in medical education and training, but also the other six CanMed roles – Communicator, Collaborator, Manager, Health Advocate, Scholar and Professional – should be clearly represented in educational programmes.

The European Rheumatology Curriculum Framework has a section for each of the seven roles. Each section starts with a short *definition* of the role presented and a more extensive *description* of its nature in the perspective of the rheumatologist. This is followed by a list of *key elements*, which are meant to raise to consideration the diverse variety of dimensions that may be considered within that specific role. *Key competencies* deemed necessary for accomplishing the role are described at the levels expected by the end of training and this is followed by a more detailed description of *specific training requirements* within these competencies. Suggestions on appropriate *teaching and learning* as well as *assessment methods* for each of the competencies are presented (Table 1). In-depth description of these methods can be found in the European Board of Rheumatology Educational Guide [6]. A reference list for additional details and resources is given for each role. At the end of the framework, a *list of conditions* is added to clarify the clinical scope to be addressed by national curricula.

Describing the seven roles from the perspective of the rheumatologist is a never-ending challenge. In particular, the Board acknowledges the difficulties involved in defining the minimum competencies that a European Rheumatologist shall demonstrate by the end of the specialist training. Although this may be central for exams and accreditation processes, there is no critic-proof answer to the task of defining precisely a complex and flexible competence at a given moment within a continuum of professional development. Common sense and peer discussion will always have a major say in this area.

The authors believe, however, that the European Framework makes an important contribution in defending trainees and the curriculum from excessive detail and subspecialization in establishing that, at the end of training, trainees should only be asked to demonstrate ‘operational knowledge’:

Box 1 The seven roles of the practicing physician, following the CanMeds framework

- Medical expert
- Communicator
- Collaborator
- Manager
- Health advocate
- Scholar
- Professional

Table 1
Structure of the European Rheumatology Curriculum Framework.

Structure of a section	Content
Definition	A short definition of the role
Description	The nature of the role in the perspective of the Rheumatologist
Elements	A list of the key elements for the specific role
Key competencies	Competencies deemed necessary for accomplishing the role by the end of the training
Specific training requirements	A description of training requirements within the competencies
Teaching and learning	Suggestions on appropriate teaching and learning
Assessment methods	Assessment methods for each competencies presented

information at the depth needed for the skilful performance of all listed competencies, in the perspective of the practising rheumatologist in their national setting.

The seven roles of the rheumatologist

The medical expert

Definition

As Medical Experts, rheumatologists integrate all of the roles and competencies listed in the European Rheumatology Curriculum Framework, applying medical knowledge, clinical skills, and professional attitudes in their provision of patient-centred care. Medical Expert is the central physician role in rheumatology practice.

Description

Rheumatologists possess a defined body of knowledge, clinical skills, procedural skills and professional attitudes, which are directed to effective care of patients with rheumatic conditions. Their care is characterized by up-to-date, ethical, and resource efficient clinical practice as well as by effective communication in partnership with patients, other health care providers and the community. The role of Medical Expert is central to the function of rheumatologists and draws on the competencies included in the roles of Communicator, Collaborator, Manager, Health Advocate, Scholar and Professional.

Elements

- Core medical knowledge.
- In-depth knowledge of musculoskeletal problems and conditions.
- Medical history and examination.
- Diagnostic reasoning.
- Clinical judgement.
- Clinical decision-making.
- Risk-benefit and pharmaco-economic consideration.
- Assessment of the impact of musculoskeletal conditions.
- Application of appropriate management.
- Procedural skill proficiency.
- Team leadership.
- Evidence-based practice.
- Empathic care.
- Integration of all competencies to achieve optimal patient care.
- Application of ethical principles for patient care.

Key competencies

By the end of training, a rheumatologist must be able to:

- Demonstrate diagnostic, management and therapeutic skills for ethical and cost-effective patient care in the complete array of musculoskeletal and connective tissue problems and conditions.
- Work in a multiprofessional and multidisciplinary team, recognizing the limits of his or her own expertise.
- Access, appraise and apply information that is relevant to clinical practice.
- Provide efficient support to the development of services related to disease prevention, patient care, patient and family education, social support, medical education and legal opinions.

With these points, the document aims to stress the importance of competencies of communication and cooperation, critical appraisal of evidence, cost consideration and advocacy even while considering solely the medical expert.

Specific training requirements

Training requirements for this role involve knowledge and clinical skills.

Knowledge. The knowledge basis, defined as 'operational', is organized around general knowledge (from basic statistics to legal regulations), basic sciences, clinical sciences (adult and paediatric conditions) and therapeutics. Readers interested in the details of this section are advised to consult the original document.

The Board refrained from being too specific about the exact content of knowledge in each of the areas or disciplines. Some documents of a similar nature, like the Core Curriculum Outline for Rheumatology Fellowship Programs in the USA [3], adopted a different strategy by listing down the immunological pathways and interactions that should be considered. The European Board felt that such a list can never be complete and could not be flexible enough to encompass the healthy cultural variability throughout Europe.

On the other hand, it was decided to underline the practical focus of the goals, stressing the ability to critically appraise and use knowledge in the resolution of clinical problems. For example, the need to master basic statistical and immunological concepts together with the importance of considering cost is highlighted, but the highest priority is given to reasoning skills and to the holistic approach of patients and their problems.

The document takes into consideration the variability among nations on who takes responsibility for paediatric rheumatic patients, suggesting different levels of performance according to the regulatory setting and the medical condition considered.

With regard to therapeutics, a comprehensive approach was adopted, which incorporated not only pharmacological agents abut also surgery, rehabilitation techniques, alternative medicines, multidisciplinary care and consideration of the psychosocial aspects of rheumatic diseases.

Clinical skills and practice. The *core clinical skills* required from the new rheumatologist include the ability to collect and interpret relevant information about a person with a musculoskeletal problem (history, physical examination, laboratory and imaging studies). The rheumatologist should be able to use this information in the light of medical knowledge to perform differential diagnosis, assess the patient's global status, plan further evaluation, and organize and implement a comprehensive management plan for the patient and assess its effect. This may include children, depending on the circumstances of practice at a national level. These skills are further defined to considerable detail.

Some technical skills are considered obligatory. These include: (1) aspiration of joints and bursae; (2) injection of joints and soft tissue; (3) synovial fluid analysis under polarized light; and (4) interpretation of musculoskeletal imaging, bone scintigraphy and bone densitometry.

With regard to the diversity of rheumatology practice in different European countries, some technical skills are considered optional and left for decision at a national level. In some countries, for example, rheumatologists perform arthroscopy; in other countries they do not. Paediatric rheumatology is a separate speciality in some but not in all European countries. Optional skills include, among others, biopsies of different tissues and organs, musculoskeletal ultrasound, capillaroscopy and arthroscopy.

Teaching and learning methods

The document provides a list of recommended methods for teaching, learning and assessing the different competencies within each role. Following the guiding philosophy of the document, it is understood that the fine decisions regarding each method will be made at a national or local level. To foster sensible decisions, each of these methods is the object of a short description and appraisal in a rheumatological perspective, together with extensive referencing in the associated Educational Guide. The list pertaining to the Medical Expert role is presented here as an example.

Knowledge. Methods and resources for acquiring the recommended body of knowledge include, but are not limited to:

- Independent reading: recommended textbooks, journal articles and internet based research and study:
- Didactic teaching: conferences, lectures or discussions.
- Clinical laboratory experience.
- Dedicated courses.
- Clinical rounds.
- Involvement in teaching.
- Critical review of literature: journal clubs, etc.

Clinical skills and practice. Active involvement in patient care, in both the outpatient clinic and inpatient (hospitalized) settings, is the central pillar of skills acquisition. Such experiences must be duly supervised so that the trainee has abundant opportunity to observe skilled clinician role models, participate in the management of rheumatologic problems and receive appropriate, constructive feedback. Situations in which facets of patient care are taught and learned include:

- Didactic teaching: conferences, lectures or discussions.
- Clinical experience in a supervised, mentored clinical setting.
- Interactive case-based discussions.
- Independent reading: recommended textbooks, journal articles and internet-based research and study.
- Preparation of patient care portfolios.
- Clinical case presentations.
- Web-based case reviews.

Assessment methods
Knowledge

- Faculty performance rating: with regard to medical knowledge.
- Evaluation committee.
- Formal oral or written exam.
- Mentor evaluation of trainee's clinical performance.

Clinical skills and practice

- Regular formative appraisal and feedback.
- Faculty performance rating, with regard to patient care.
- Evaluation committee.
- Chart review: for patient care, drug prescribing, or outcomes.
- Presentations to peers and lay audiences.

- Participation in individual or group quality improvement projects.
- Formal practical exam.
- Clinical evaluation exercise (mini-CEX).
- Direct observation of practical skills (DOPS).
- Objective structured clinical examination (OSCE).
- 360° evaluations.
- Portfolio review.

Communicator

The ability to communicate effectively, not only with patients and their families but also with the general public, the authorities and colleagues, is core to the modern practice of medicine and rheumatology. It should, therefore, be formally represented in every training programme through explicit dedicated aims as well as recommended methods of teaching, learning and assessment.

Definition

As Communicators, rheumatologists effectively facilitate the doctor–patient relationship and the dynamic exchanges that occur throughout the course and medical management of what are frequently long-term conditions.

Description

Rheumatologists enable and nurture patient-centred therapeutic communication through shared decision-making and effective dynamic interactions with patients, families, caregivers, other professionals, and important other individuals. The competencies of this role are essential for establishing rapport and trust, formulating a diagnosis, delivering information, striving for mutual understanding, and facilitating a shared plan of care. Confidentiality and ethics must be respected.

The application of these communication competencies and the nature of the doctor–patient relationship vary for different cultures, conditions and individual needs for information. The potential barriers of language and culture need to be recognized.

Elements

- Patient-centred approach.
- Empathy, concordance, mutual understanding.
- Relational competence in interactions.
- Effective listening.
- Use of expert verbal and non-verbal communication.
- Respect for diversity.
- Interactive process.
- Eliciting and synthesizing information for patient care.
- Attention to the psychosocial aspects of illness.
- Conveying effective oral and written information for patient care.
- Shared decision making.
- Rapport, trust and ethics in the doctor–patient relationship.
- Constructive relationships with patients, families and caregivers.
- Capacity for compassion, trustworthiness, integrity.
- Flexibility in application of skills.
- Efficiency, accuracy.
- Breaking bad news.
- Addressing end-of-life issues.
- Disclosure of error or adverse event.
- Informed consent.
- Capacity assessment.

- Appropriate documentation.
- Public and media communication, where appropriate.

Key competencies

By the end of training, a rheumatologist must be able to:

- Develop a good interaction with empathy, trust and ethical therapeutic relationships with patients, carers and families.
- Accurately elicit, select, document and synthesize relevant information and perspectives of patients and families, colleagues and other professionals.
- Adequately and understandably convey relevant information and explanations to patients and families, colleagues and other professionals.
- Propose and negotiate a common understanding on issues, problems and plans with patients and families, colleagues and other professionals to develop a shared plan of care.
- Convey accurate and effective oral and written information about a medical problem.

Specific training requirements

To acquire and demonstrate the competencies above, the trainee must exhibit, at the completion of training the following specific knowledge, skills and attitudes.

1. Develop a good interaction with empathy, trust and ethical therapeutic relationships with patients, carers and families:

1.1. Be a good communicator: rheumatologists must recognize that this is a core clinical skill for their practice and strive to master it. They should demonstrate an understanding that effective physician–patient communication can foster patient satisfaction, physician satisfaction, adherence and improved clinical outcomes.

1.2. Establish positive therapeutic relationships with patients and their families that are characterized by mutual understanding, trust, respect, honesty and empathy.

1.3. Respect patient confidentiality, privacy and autonomy.

1.4. Have good consultation skills and be able effectively to facilitate a structured clinical encounter by listening effectively, and being aware and responsive to non-verbal cues.

2. Accurately elicit, select, document and synthesize relevant information and perspectives of patients and families, colleagues and other professionals:

2.1. Gather information about the clinical condition, but also about a patient's beliefs, concerns, expectations and illness experience.

2.2. Select, appraise and document relevant information accurately and in a way that can communicate the information reliably to others.

2.3. Seek out and synthesize relevant information from other sources, such as a patient's family, caregivers and other professionals.

3. Adequately and understandably convey relevant information and explanations to patients and families, colleagues and other professionals:

3.1. Deliver information to a patient and family, colleagues and other professionals in a humane manner, recognizing their needs and in such a way that it is understandable, encourages discussion and participation in decision-making and concordance with a plan for management.

4. Propose and negotiate a common understanding on issues, problems and plans with patients and families, colleagues and other professionals to develop a shared plan of care:

4.1. Effectively identify and explore problems to be addressed from a patient encounter, including the patient's context, responses, concerns, and preferences.

4.2. Respect diversity and difference, including, but not limited to, the impact of gender, culture and religious beliefs on decision-making.

4.3. Encourage discussion, questions, and interaction in any encounters.

4.4. Engage patients, families, and relevant health professionals in shared decision-making to develop a plan of care.
4.5. Effectively address challenging issues related to communicating with and supporting people with long term musculoskeletal conditions.
4.6. Effectively address challenging communication issues, such as obtaining informed consent, delivering bad news, and addressing anger, confusion and misunderstanding.

5. Convey accurate and effective oral and written information about a medical problem:
5.1. Maintain clear, accurate and appropriate records (e.g. written or electronic) of clinical encounters and plans.
5.2. Effectively present verbal reports of clinical encounters and plans.
5.3. Prepare reports for employers and agencies.
5.4. Understand the critical issues involved in presenting medical information to the public, to insurers or to the media about a medical issue.

Teaching and learning methods

Methods and resources that can contribute to the acquisition of these competencies include, but are not limited to:

- Experiential learning/tutorial learning: working with professionals who are examples of good practice and actively adopt a tutorial role towards the trainee in these domains is probably the most efficient way of promoting these competencies.
- Group case-based discussions.
- Role playing.
- Consultation under supervision/video followed by appraisal.
- Working with patient organizations and public groups.
- Patient partners.

Assessment methods

- Regular formative appraisal and feedback.
- Assessment of videotaped encounters.
- 360° assessment.
- Clinical records review.
- Clinical reports review.

We have presented the central role (Medical Expert) and the Communicator role in some detail to give the reader a good perspective of the content and philosophy of the European Rheumatology Curriculum Framework. This does not preclude the need to consult the original document and associated publications for more detailed information.

For the sake of space and readability, the following roles will be presented in a more resumed format, highlighting only the most significant aspects.

Collaborator

Rheumatologists work in partnership with others who are appropriately involved in the care of individuals or specific groups of patients. Modern healthcare teams not only include a multidisciplinary group of professionals working closely together at one site, such as a ward team, but also extended teams with a variety of perspectives and skills, in multiple locations. It is therefore essential that rheumatologists are able to collaborate effectively with patients, families and an interprofessional team of expert health professionals for the provision of optimal care, education and scholarship.

Although collaborative attitudes and skills might be thought to develop spontaneously with training in the usual hospital setting, educational research shows that such competencies can be

developed and trained to higher standards with dedicated programmes. Training programmes should, therefore, make sure that trainees and trainers are well aware and practice the key elements of this role. They include a culture of collaboration and mutual respect but also principles of team dynamics, multiprofessional healthcare, leadership and negotiation techniques, among others.

Competencies that should have been acquired by the end of training include the ability to:

- Participate effectively and appropriately in a multiprofessional and multidisciplinary healthcare team.
- Work effectively with other healthcare providers and agencies to negotiate and resolve issues relevant to patient care.
- Collaborate with organizations for people with musculoskeletal conditions.

Each of these competencies has been dissected into diverse aspects that deserve specific attention in a given training programme. The most important and effective way of developing such competencies consists of experiential learning within rheumatology departments, with professionals who are examples of good practice in these domains. There is no substitute for this and departments or individuals who do not qualify as good examples should probably not be accredited for teaching. Formal training can be provided through group case-based discussions and performance under supervision followed by appraisal or experiential learning with patient organizations and public groups.

Regular formative appraisal and feedback by competent supervisors is crucial. Trainers should be aware of these domains and identify problems and propose solutions. Other methods can be employed for formal assessment.

Manager/medical leader

Rheumatologists interact with their work environment as individuals, as members of teams or groups and as participants in the health system locally, regionally or nationally. They function as managers of practice activities involving a multidisciplinary team, resources and organizational tasks (such as care processes) and policies, as well as balancing their personal lives. Thus, rheumatologists require the ability to prioritize, to execute tasks collaboratively with colleagues and to develop the service while at the same time making systematic choices when allocating scarce healthcare resources.

Most physicians develop competencies in this area under traditional curricula. In most cases, this will happen later in life, when exposed to they are managing tasks. There is an increasing demand for the sensible use of such skills and there is little doubt that they will develop in a more sound, efficient and durable way if trainees and trainers keep them alive in their educational concerns and evaluations from the early phases of training.

The Board recommends that elements of organization, structure and financing of the healthcare system, career development, quality assurance and audit, leadership and aspects pertaining to managerial and leadership roles should be present in all programmes. These elements should be structured around competencies that are defined as clearly as possible in a way that is relevant to the actual training and practice environment. The recommend competencies are demonstrated by the ability to:

- Participate successfully in activities that contribute to the effectiveness of their healthcare organizations and systems.
- Manage their practice and career effectively.
- Understand and critically allocate finite healthcare resources appropriately in the interest of patients and the community.
- Serve in administration and leadership roles.

It is recognized that these competencies cannot be fully trained and acquired during specialist training, but will rather be develop and matured through continuing professional development.

However, training programmes must set the basic conditions to facilitate this process and verify that they have been acquired at the appropriate level.

Again, the most important means of learning is by experiential learning in departments that can provide examples of good practice in these domains. Quality audit of training programmes should make sure that such conditions are present. Regular formative appraisal and feedback is the most relevant way of assessment but other instruments, such has reflective portfolios and 360° evaluations can also be used for this purpose.

Health advocate

As Health Advocates, rheumatologists use their expertise and influence responsibly to advance the health and well-being of individual patients, communities and populations, especially with respect to musculoskeletal and connective-tissue conditions.

Rheumatologists must recognize and embrace their duty to promote the overall health of their patients and the society they serve. They need to recognize advocacy activities as important for the individual patient, for populations of patients and for communities. Individual patients need physicians to assist them in navigating the healthcare system and accessing the appropriate health resources in a timely manner. Communities and societies need rheumatologists' special expertise in identifying health risks and solutions with respect to the musculoskeletal system, as well as their contribution to wise and equitable allocation of health resources. At this level, health advocacy involves efforts to change specific practices or policies on behalf of those served. Health advocacy is appropriately expressed both by individual and collective actions of physicians in influencing public health and policy.

There would, we believe, be little argument about the importance of this role or also about the decisive impact of experiences during training in establishing such crucial aspects of the medical culture in any given physician.

Training programmes – through regulations, specific aims and activities and, above all, committed supervisors – should make sure that every trainee is made aware of issues surrounding advocacy for individual patients, populations and communities; of the individual and socioeconomic burdens of musculoskeletal diseases; of the structure and functioning of the health and social security systems; and of the responsible use of authority and influence.

The European Framework document recognizes that competencies cannot be fully acquired during fellowship but recommends that specific objectives and experiences are planned and appraised for this purpose in order to structure and foster the further future professional development of each individual. Recommended learning and assessment methods are similar to those suggested for the Manager role.

Scholar

As Scholars, rheumatologists should demonstrate a lifelong pursuit of mastering their domain of expertise and engage in the creation, dissemination, application and translation of medical knowledge of their field. They must recognize and assume their role as formal or informal teachers and educators (role models). Accordingly, they facilitate the education of their students, patients, colleagues, health professionals and community.

The training programme can have a decisive impact by rooting these principles and attitudes in the physician. The Board recommends that, as part of their professional education, at the completion of training rheumatologists must demonstrate the abilities and attitudes needed to:

- Enhance the quality of their professional performance through ongoing learning and self-assessment
- Apply the principles of evidence-based medicine in their practice.
- Facilitate the learning of patients, families, students, trainees, relevant health professionals, the public and others, as appropriate.
- Contribute to the development, dissemination, and translation of new knowledge and practices, especially in the field of rheumatology.

- Exercise appropriate interaction with industry and other commercial interests, with due consideration of risks regarding conflicts of interest.

To achieve these requirements, the training programme must incorporate opportunities to exert and discuss key elements of scholarship, such as self-assessment, accountability, critical appraisal of practice and evidence, communication, evidence-based medicine.

Teachers and programme leaders must be critically aware of the importance of role modelling and mentoring in the development of such attitudes and values. Practical involvement in teaching, audit and appraisal, as well dedicated courses on these issues, are also recommended as methods of learning.

These competencies should be evaluated and accredited if they are to be acquired. Regular formative appraisal and feedback, together with the use of portfolios and 360° assessments are the most adequate methods in the field.

Professional

Rheumatologists, like all physicians, have a unique role as professionals who are dedicated to the health and caring of others. Their work requires the mastery of a complex body of knowledge and skill, as well as the art of medicine. As such, the Professional role is guided by codes of ethics, a commitment to clinical competence, the embracing of appropriate attitudes and behaviours, integrity, altruism, personal well-being and the promotion of the public good within their domain. These commitments form the basis of a social contract between the physician and society. Society in return, grants physicians the privilege of profession-led regulation with the understanding that they are accountable to those served.

In short, as professionals, rheumatologists are committed to the health and well-being of individuals and society through ethical practice, profession-led regulation and high personal standards of behaviour.

Although these concepts are difficult to capture in short sentences and clear objectives, the Curriculum Framework recommends that all programmes should have specific goals, learning opportunities and evaluations on professionalism. They might need cultural adaptation from those stated in the document:

- Demonstrate a commitment to their patients, profession, and society through ethical practice.
- Demonstrate a commitment to their patients, profession and society through participation in profession-led regulation.
- Demonstrate a commitment to physician health and sustainable practice.

It is recognized that these competencies will develop and mature through continuing professional development. Training programmes must, however, establish the appropriate standards and reinforce the attitudes that will lead to lifelong commitment to the principles.

Experiential learning in rheumatology departments that are examples of good practice in these domains is the most efficient way of promoting these competencies. Sensible and dedicated mentoring is essential. Demonstration of excellence on this domain must be key to the department's accreditation for teaching.

The acquisition and sedimentation of professionalism can be further facilitated by faculty discussions on issues and exemplary cases, and can be combined with dedicated lectures and courses, among other methods.

Assessment can be based on a combination of portfolio review, appraisals and ratings of performance by peers, associated workers and patient surveys.

How to use the framework

The European Rheumatology Curriculum Framework is not a finalized curriculum but merely a guide. It aims to provide national authorities with inspiration and benchmarking, although different educational strategies can and will be adopted depending on traditions, rules and resources. Transforming the Framework into a formal, competency-based curriculum involves decisions on the optional skills and competencies, deciding on adaptations to national needs and describing how the training programme works to develop and assess the elected competencies. It should specify how

the training and educational experiences are structured and aligned over time, and which methods are used to evaluate the development of competencies.

Even when a country has fully adopted the European Rheumatology Curriculum Framework, many decisions are needed to develop a national curriculum:

- Needs analyses.
- Curriculum structure, philosophy and values.
- Aims, outcome and competencies.
- Content.
- Learning systems and environments.
- Learner support and development.
- Assessment.
- Staff support and development.
- Management, evaluation and quality assurance.
- Methods of implementation.

Several resource documents can be added to the European Curriculum Framework to help develop national curricula. The European Board of Rheumatology Educational Guide[6] describes the basic principles of curriculum planning and management, teaching and learning methods and assessing methods, taking into account the specificities of rheumatology.

The American Core Curriculum Outline (March 2006) [3] is also a framework. It offers excellent examples of organization and nomenclature for a competency-based curriculum, as well as an important series of practical examples for specific clinical attachments.

The British (May 2007) [4] and the Danish (August 2007) [5] curricula are excellent examples of competency-based curricula and also offer good examples of curriculum maps, aligning objectives, with methods for learning and assessment.

Finally, the UEMS Charter on the Training of Medical Specialist in Europe [7], written in cooperation with the European Commission, outlines the general requirements and guidelines for adequate training. A section specifically devoted to each individual speciality designed by the respective sections completes the document. The UEMS Charter on Training of Rheumatologists [7] is produced by the European Board of Rheumatology. It specifies the requirements for adequate training to prepare specialists for practice in the speciality of rheumatology at an appropriate level in any Member State of the EU. This document was revised and approved in December 2006.

Implementation

To implement the European Curriculum Framework, it needs to be recognized and adopted at a national level. At present, the Curriculum is being circulated within national authorities and professional bodies in Europe for endorsement. This endorsement will mean that the organization: 'recognizes the value of the European curriculum framework as valuable guidance providing a framework toward harmonization of training and professional competence of rheumatologists within Europe and its individual countries. That they will use the document as inspiration in the design and delivery of national curricula and programmes related to the training of rheumatologist'. By October 2008, the most representative scientific and professional organizations from 17 European countries have signed the endorsement document.

The Curriculum Framework was presented at the EULAR Congress 2008 and members of the European Board of Rheumatology are encouraged to present it in national journals of rheumatology.

Summary

This chapter presents the new European Rheumatology Curriculum Framework, which has been produced by the European Board of Rheumatology. The Curriculum Framework has adopted the CanMeds [2] roles of Medical Expert, Communicator, Collaborator, Manager, Health Advocate, Scholar

and Professional. It provides an extensive list of competencies in the different domains that European rheumatologists are expected to have archived by the end of their specialist training.

In a competency-based curriculum framework devoted to rheumatology, each of the seven roles is briefly defined, the nature of the role is described, competencies deemed to be key for the role are listed, specific training requirements are described and teaching, learning and assessments methods are suggested. This is meant as inspiration for the development of national curricula in rheumatology, because final decisions on the exact content and strategy of specific training programmes remain at a national level and will depend on local rules, traditions and resources.

The curriculum framework is supplemented with an Educational Guide, which is designed to help policy makers and teachers to better structure their curriculum development plans and to select among the numerous methods of teaching and assessment. These decisions can be assisted by the European Rheumatology Curriculum Framework and the European Board of Rheumatology Educational Guide to ensure a harmonization of rheumatologists training in Europe.

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