

# CLINICAL DECISION SUPPORT FOR EUROPEAN IMAGING REFERRAL GUIDELINES

**ESR iGUIDE** is a clinical decision support system for European imaging referral guidelines developed by the European Society of Radiology (ESR) and National Decision Support Company (NDSC).

Combining the medical expertise of the ESR with NDSC's tried and tested clinical decision support platform, **ESR iGUIDE** offers an efficient, traceable and reliable way of supporting the request of the most appropriate imaging exams in daily practice. **ESR iGUIDE** provides users with guidelines and recommendations based on the latest medical evidence, integrates seamlessly into the clinical workflow and existing IT infrastructure, supports and educates referring physicians, and gives patients confidence that they receive the best radiological healthcare.

#### WHY CDS?

- Addressing the lack of use of imaging referral guidelines in Europe
- Supporting the selection of more appropriate imaging procedures
- Keeping guidelines up-to-date through continuous updates
- Seamless integration into the clinical workflow
- User-friendly availability at the point of care
- More reliable justification process through traceability and accountability
- Educational benefits through feedback on appropriateness of selected exams
- Creating awareness for gaps in availability or lack of quality of imaging equipment

## ABOUT THE ESR'S CLINICAL DECISION SUPPORT INITIATIVE

Following an ESR-led European Commission study revealing that imaging referral guidelines are hardly used in Europe, the ESR initiated a project to make evidence-based guidelines available in a user-friendly way. Clinical decision support offers an ideal solution to this problem, as guidelines can be kept up-to-date while being available to referring physicians at the point of care.

In 2014, the ESR reached an agreement with the American College of Radiology (ACR) and NDSC to adapt *ACR Select* for use in Europe. In November 2014, a team of ESR-appointed radiologists started ascientific review process of the ACR's criteria to adapt them to European standards of practice. This content together with NDSC's technical platform is licensed to European healthcare providers by NDSC.

**ESR iGUIDE** supports referring physicians in selecting the most appropriate imaging exams for their patients by giving feedback on the appropriateness and relative radiation dose of different procedures. The system can be tailored to users' needs, providing feedback for each and every request or running in the background alerting referrers only if an inappropriate exam is selected.

# DEVELOPMENT OF EUROPEAN IMAGING REFERRAL GUIDELINES

ESR experts review and adapt the content for ESR iGuide from the ACR Appropriateness Criteria, consisting of clinical scenarios and indications as well as imaging exams, for nine imaging topics:



- Breast Imaging
- Cardiac Imaging
- Gastrointestinal Imaging
- Musculoskeletal Imaging
- Neurologic Imaging
- Thoracic Imaging
- Urologic Imaging
- Vascular Imaging
- Women's Imaging

The appropriateness of each imaging exam is scored on a scale of one to nine, with ratings divided into three categories. Through the European review, the ESR aims to establish generic European imaging referral guidelines that can be further localised according to national or institutional requirements, for example by taking into account non-scientific criteria such as the availability of certain types of equipment.

The ACR and ESR have agreed to cooperate on the in-depth updates of the entire stock of guidelines every two years, in addition to the ongoing maintenance of the guidelines through incorporating user feedback.

#### **OUR MISSION**

The ESR is committed to ensuring patients across Europe receive radiological services of the highest quality and safety. The insufficient use of imaging referral guidelines must be addressed in order to improve the quality and safety in medical imaging in Europe, and user-friendly CDS solutions are an effective and proven way to achieve this. In partnership with the American College of Radiology, who have introduced the CDS system ACR Select in the United States in 2012, the **ESR iGUIDE** initiative aims to bring the benefits of CDS to European healthcare professionals and patients.

### TIMELINE

2012	ACR and NDSC introduce ACR Select in the United States
December 2013	ESR-led European Commission tender study reveals lack of use of imaging referral guidelines
March 2014	ESR, ACR and NDSC agree partnership to introduce CDS for imaging guidelines in Europe
November 2014	ESR expert team starts scientific review of ACR criteria to develop guidelines adapted to European standards of practice
March 2015	prototype of ESR iGuide launched at ECR 2015
from May 2015	preparations for ESR iGuide pilot tests
Summer 2015	finalisation of ESR European imaging referral guidelines



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