

Clinical decision support for imaging referral guidelines

The CDS Project is managed by the European Society of Radiology (ESR).
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Rationale

The ESR considers European referral guidelines for medical imaging essential and that the improvement of guideline use is urgently needed. This can only be achieved through IT based solutions, i.e. embedding them in a Clinical Decision Support (CDS) environment. A CDS format would create the flexibility to adapt the guidelines to national, local, institutional or organisational needs.

This view is based on the results of a European Commission (EC) Tender Project, the findings of which show that only two EU countries – France and the UK – develop their guidelines autonomously. More importantly, the study revealed a significant lack of imaging referral guidelines use, partly because they are only available in text formats.

To remedy this problem, the ESR began to develop European imaging referral guidelines and a CDS system to achieve appropriate use of radiation and to avoid unnecessary radiation exposure of patients. Several stakeholders, including the European Commission (EC), the Heads of European Radiological Protection Competent Authorities (HERCA), the UK Royal College of Radiologists (RCR), the French Radiology Society (SFR), the American College of Radiology (ACR) as well as the International Atomic Energy Agency (IAEA), have acknowledged the need for a CDS system and signalled their support.

In the pilot phase of the project carried out during 2013, a group of experts from the ESR, RCR and SFR worked on comparing and merging the UK and French guidelines, which revealed considerable discrepancies between the two national guidelines.

Both the outcome of the EC Tender Project and the comparison work demonstrated that an approach based on different national guidelines does not appear feasible as they are not generalisable. A global approach seems better suited to the requirements of flexibility and customisation.

The ESR therefore intends to develop a global set of guidelines in an algorithmic CDS format, designed to be adapted for national or local use according to specific circumstances and requirements.

ESR Vision

- » **Long-Term Objective:** ESR and ACR to develop a set of common evidence-based global imaging referral guidelines in CDS format to ensure a high quality standard for localisation
- » **iGuide:** development of an online Clinical Decision Support System available at the point-of-care to use evidence-based guidelines and aid patient-tailored decision support tools for imaging
- » **European Setting:** speedy adaptation of ACR Appropriateness Criteria for use in Europe to address the time-sensitive demand for a CDS system as an interim product
- » **The Benefits:**
 - increased use of guidelines
 - reduction in unnecessary and inappropriate radiological examinations
 - decreased radiation exposure of populations
 - improved patient care through more personalised treatments
 - improved clinical workflow
 - educational and training effects
 - data generated that can be used for research and better decision-making

