

BY FLORIAN DEMUTH

ESR iGuide – delivering the ESR’s imaging referral guidelines at the point of care

The first pilot implementations of ESR iGuide, a clinical decision support system using the European Society of Radiology’s (ESR) imaging referral guidelines licensed by National Decision Support Company (NDSC) Europe, started in 2016, while the ESR put in place the structure for maintaining its referral guidelines in cooperation with the American College of Radiology (ACR).

In this article, we review an eventful 2016 for ESR iGuide, take a look at the process of implementing decision support in hospitals and catch a glimpse of some preliminary data on how ESR iGuide can improve the appropriateness of imaging referrals.

2016: putting the pieces into place

As ESR iGuide implementations are under way in a number of European and Middle Eastern countries, NDSC has established partnerships with hospital information system (HIS) and electronic medical record (EMR) providers in order to integrate ESR iGuide into referring doctors’ native workflows. Following the upload of the first version of the ESR’s referral guidelines, which are based on the ACR Appropriateness Criteria, into NDSC’s platform in February, the ESR established a working group on imaging referral guidelines to maintain and update the content of ESR iGuide. The creation of a joint Rapid Response Committee (RRC) between the ACR and ESR will facilitate transatlantic cooperation on clinical imaging guidelines.

Pilot tests: what an ESR iGuide implementation looks like

With this institutional set-up in place, and following the establishment of NDSC’s European headquarters, NDSC began to work with EMR providers to integrate

ESR iGuide and implement the ESR iGuide solution for several hospitals across Europe in order to conduct pilot tests of the software. Following in the footsteps of the Barcelona University Clinic, where ACR Select (NDSC’s platform in the

United States) has been used for outpatient General Practitioner’s referrals since 2014, the first pilot projects will be concluded in 2017 and evaluated thereafter.



The ESR iGuide content has been translated for users into Croatian, Dutch, German, Italian, Russian, Spanish and Swedish. Aside from the crucial role of effective change management and the support of an institution’s leadership from the start, configurability and user-friendly access to the guidelines are essential aspects of a successful decision support implementation.

Any ESR iGuide installation starts with a number of key scope definitions to make sure CDS meets each site’s specific needs. Hospitals can determine for which modalities, clinical areas, user or patient groups they want to enable decision support, when appropriateness alerts should be displayed, and select the workflow options – modality-driven, indication-driven, or both – they want to use. In addition, the

ESR’s referral guidelines can be localised to reflect national regulations or institutional requirements.

Once scope and content questions are clarified, NDSC maps the orderable hospital procedures to the ESR iGuide exam catalogue and enables ESR iGuide in the hospital’s IT environment in cooperation with the EMR provider. Detailed review meetings and testing sessions ensure that potential issues are addressed before the system goes live. NDSC’s reporting package, which is also configured during the implementation process, enables users to track the usage of ESR iGuide and analyse its impact. Supported by NDSC, hospital staff involved in the implementation project team then train referring physicians to use the system.

Once ESR iGuide is switched on, pilot sites collect data for several weeks or a few months as referring physicians start using ESR iGuide’s structured reasons for exam without seeing the associated appropriateness ratings, after which the

appropriateness alerts are switched on for another few months. Splitting the go-live period into these distinct phases results in a very clear before-and-after picture to evaluate the impact of ESR iGuide.

Case studies in Europe

A pilot project using a Spanish version of ACR Select at the Hospital Clinic Barcelona, which ran from 2013 to 2015, was the first example of primary healthcare physicians using NDSC’s decision support platform in Europe. ACR Select was integrated into the existing information system for referrals in three primary healthcare centres within the hospital’s catchment area.

A retrospective study, before (January to April 2014) and after (January to April 2015) the imple-

mentation of ACR Select, on the impact of the ACR Criteria on the quantity and characteristics of test referrals was carried out, while the impact on health outcomes at primary healthcare level and associated changes in costs of tests prescribed are also being studied. The analysis shows that statistically significant changes in the mean number of tests requested before and after the implementation of ACR Select for specific clinical indications. The results of the Barcelona pilot project were published at the WONCA Europe 2016 conference.

Guided by the Croatian Ministry of Health, ESR iGuide was implemented at five sites in Croatia over the summer of 2016 by NDSC and the Croatian EMR provider IN2. The data collection phase ran from go-live in October until the end of January 2017.

Preliminary results indicate that up to 25 percent of referrals for diagnostic imaging were either inappropriate, or could have been done using a more appropriate alternative modality. Aside from statistically significant improvements in the appropriateness of referrals, the data captured through the use of ESR iGuide has led to findings for other qualitative improvements in the referral process.

RTF MEET & GREET SESSIONS

Today, at the **RTF Booth in the ESOR & Rising Stars Lounge** you will be able to meet the following Radiology Trainees Forum (RTF) representatives:

- 08:30–10:00** Olga Shlyapkina (Russia)
- 10:00–11:30** Yerlan Yemeshev (Kazakhstan)
- 11:30–13:00** Tijana Koković (Serbia)
- 13:00–14:30** Konstantin Kenigsberg (Belarus)
- 14:30–16:00** Žiga Snoj (Slovenia)

Join your European colleagues and representatives in an informal and relaxed discussion, exchange opinions and points of view with them and present your ideas. Take advantage of this great opportunity!

Don’t miss the **Meet & Greet Session** with **ESR President Paul M. Parizel** (today, 13:30–13:50) in the ESOR & Rising Stars Lounge in the M Building.

For more detailed information please visit the **RTF Meeting Point** in the **ESOR & Rising Stars Lounge**.

Join us also at the **RTF Quiz** with Quizmasters **José Cáceres and José Vilar** today, 12:30–13:30 in Room B (second level) and the **RTF Delegates’ Meeting (General Assembly)** today, 16:00–17:30 in Room 0.96/0.97 (entrance level).

