**Audit of compliance with imaging referral guidelines [QSI Ref: XR-501]**

**Descriptor:**

Imaging referral guidelines are of proven value in reducing inappropriate examinations but can only work if accepted and used to support justification by protocol (with radiographer authorisation), radiologists and other practitioners entitled by the employer. This audit aims to show that imaging examinations performed are appropriate, in line with referral guidelines.

**Background:**

Imaging referral guidelines are required by the European BSS Directive and national legislation, the Ionising radiation (for Medical Exposures) Regulations, IR(ME)R [1,2]. Implementation of referral guidelines is the responsibility of local NHS organisations and is an essential part of clinical governance. It is acknowledged that not every guideline can be implemented immediately on publication, but mechanisms should be in place to ensure that practice is reviewed against the guideline recommendations and the reasons for any differences assessed and, where appropriate, addressed. Imaging referral guidelines “iRefer: Making the best use of clinical radiology services” (the Guidelines) are advisory and intended to inform decisions not as a mandatory protocol and work best as part of clinico-radiological dialogue [3]. The Guidelines assist ICRP level 2 generic justification when ionising radiation examinations are used [4]. It is accepted that in individual cases there may be deviation from the indicated investigation due to the patient’s age or co-morbidity or to availability of an investigation locally. Studies show that compliance is achievable at 80-90% [5,6]. Implementation and improvement may be done by a variety of means including patient-specific reminders, continuing education and training, and clinical audit [6-10]. In order for audit of guidelines to be efficient the information used should be derived from routinely collected data. PACS or Radiology Information Systems may be searched to provide data. The use of stand-alone systems is discouraged, as they require double entry of data.

## The Cycle

**The standard:**

Compliance with guidelines should be demonstrated for the vast majority of referrals with clinical presentations covered by the guidelines.

**Target:**

A realistic and achievable target is 90% compliance.

## Assess local practice

**Indicators:**

The percentage of cases referred for a clinical problem where imaging has been compliant with guidelines.

**Data items to be collected:**

RIS search for 30 consecutive (or random) imaging examinations/procedures with record of the clinical information. The choice of modality and the exam type will depend on the area to be reviewed. Choice may be made for a group of investigations from a particular source, eg. Primary Care. Correlation of the clinical information with the requested investigation in the light of the appropriate Guideline should be made using the categories:

a. Appropriate

b. Possibly appropriate

c. Not appropriate

Cross reference of those examinations which are “possibly appropriate” with previous imaging may then be made to identify if these are the follow-up rather than first investigation. Although this method does not directly assess compliance with a guideline for a single clinical presentation, it is easier to obtain the data in most RIS-PACS using the examination type or code rather than a text word/phrase for the clinical presentation.

**Suggested number:**

30 - The number of cases used will depend on the level of compliance which is required to be shown i.e. 30 cases for 90% [11].

Reasons for inappropriate examinations include: unnecessary repeat (say, within 1 month); exams unlikely to change management; exams performed too soon; not the best investigation; or requests with inadequate clinical information for justification.

**Suggestions for change if target not met:**

This will depend on local arrangements, but possibilities include:

• Targeted training of referrers eg. junior doctors

• Feedback to referrers using an educational message on reports or at MDT meetings

• Individual feedback at time of vetting

• Automated display of guidelines, alerts or prompts if electronic requesting service used

• Clinical decision support systems (CDS) [12].

**Resources:**

Review of referral information - ideally using Radiology Information Systems search to provide data

Where clinical decision support systems are in place retrieval of these data may be automated and available by referrer or imaging provider.

**References:**

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