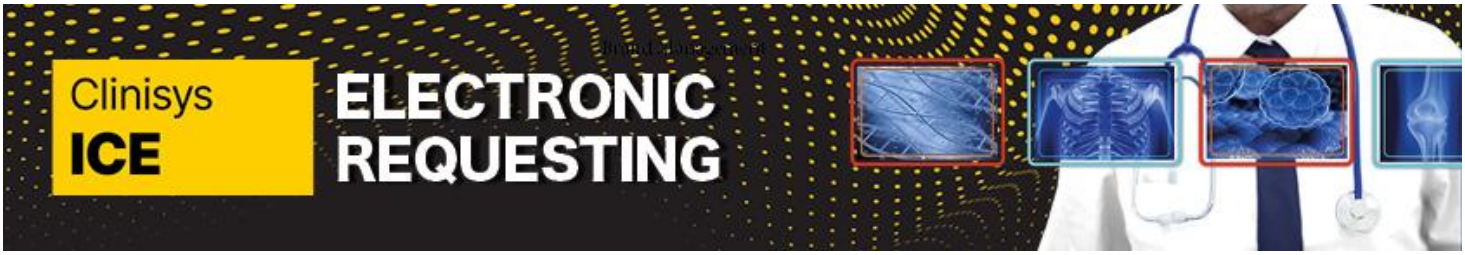
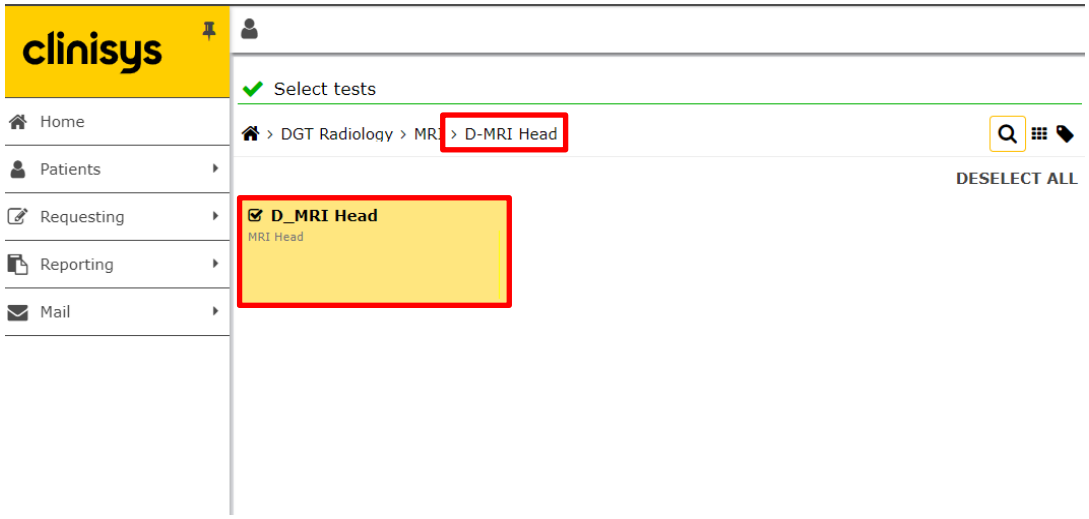


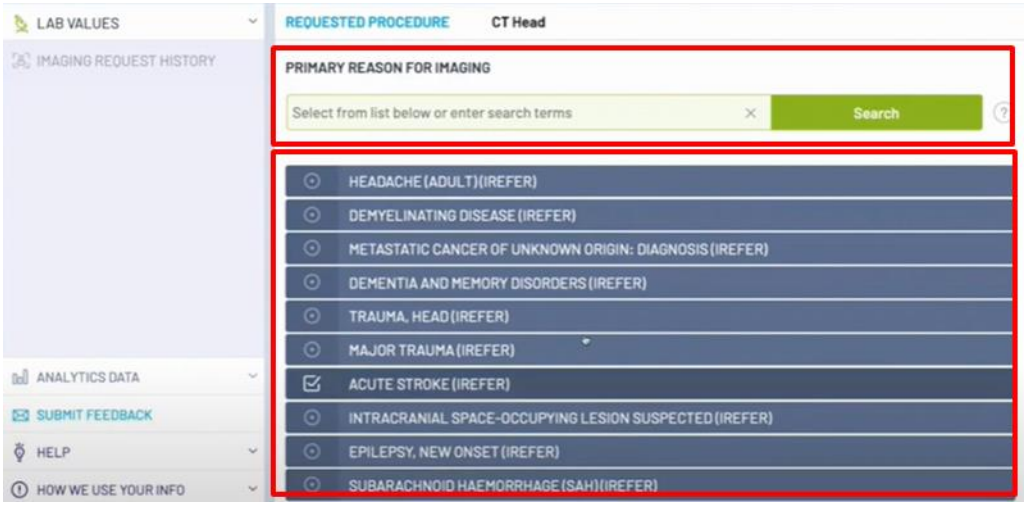
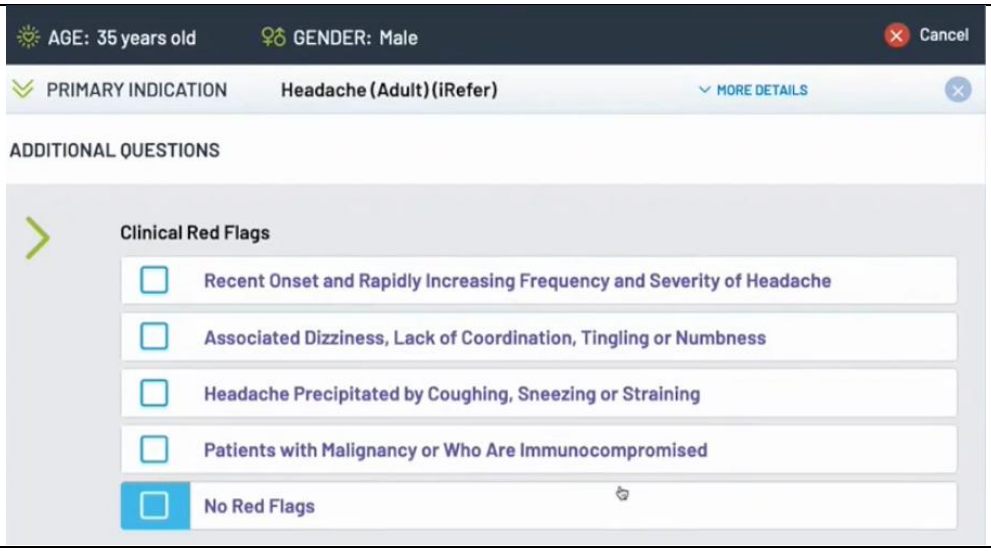
iRefer is a Clinical Decision Support (CDS) tool designed to assist healthcare providers when ordering radiology investigations within ICE. It is tailored to recommend the most appropriate examination based on the provided information and will activate when an investigation is chosen in ICE.

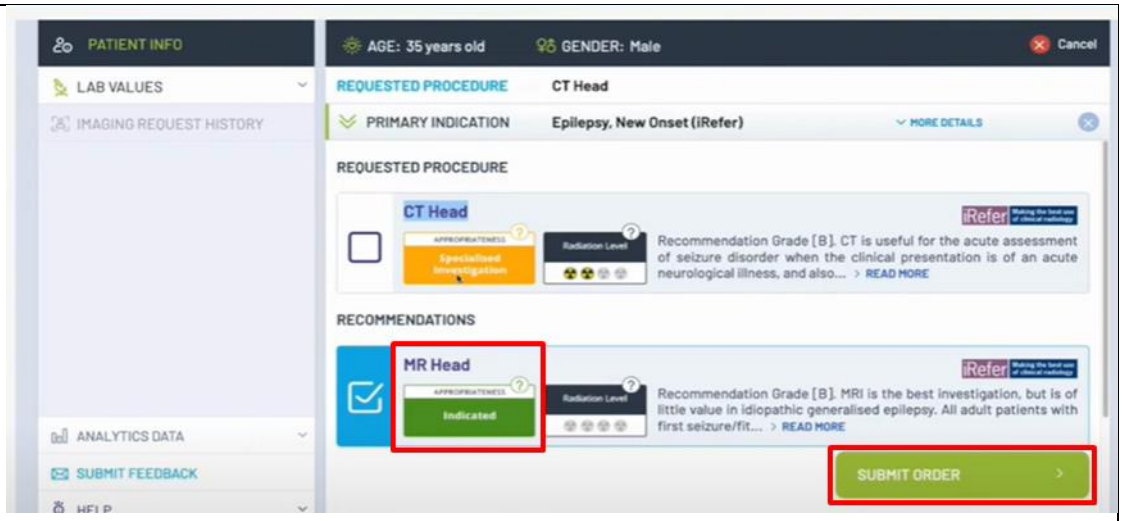
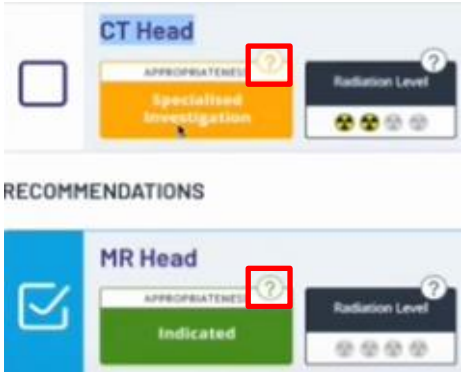
When choosing a test, the CDS tool "iRefer" will automatically launch, displaying a configured list relevant to the selected procedure. This acts as a hint list, presenting the top 10 most suitable reasons for the imaging request. If the desired reason is not shown in the list, there is a search field available to explore the entire library for alternative reasons.

In ICE, select appropriate test (see other QRGs for more guidance on this)

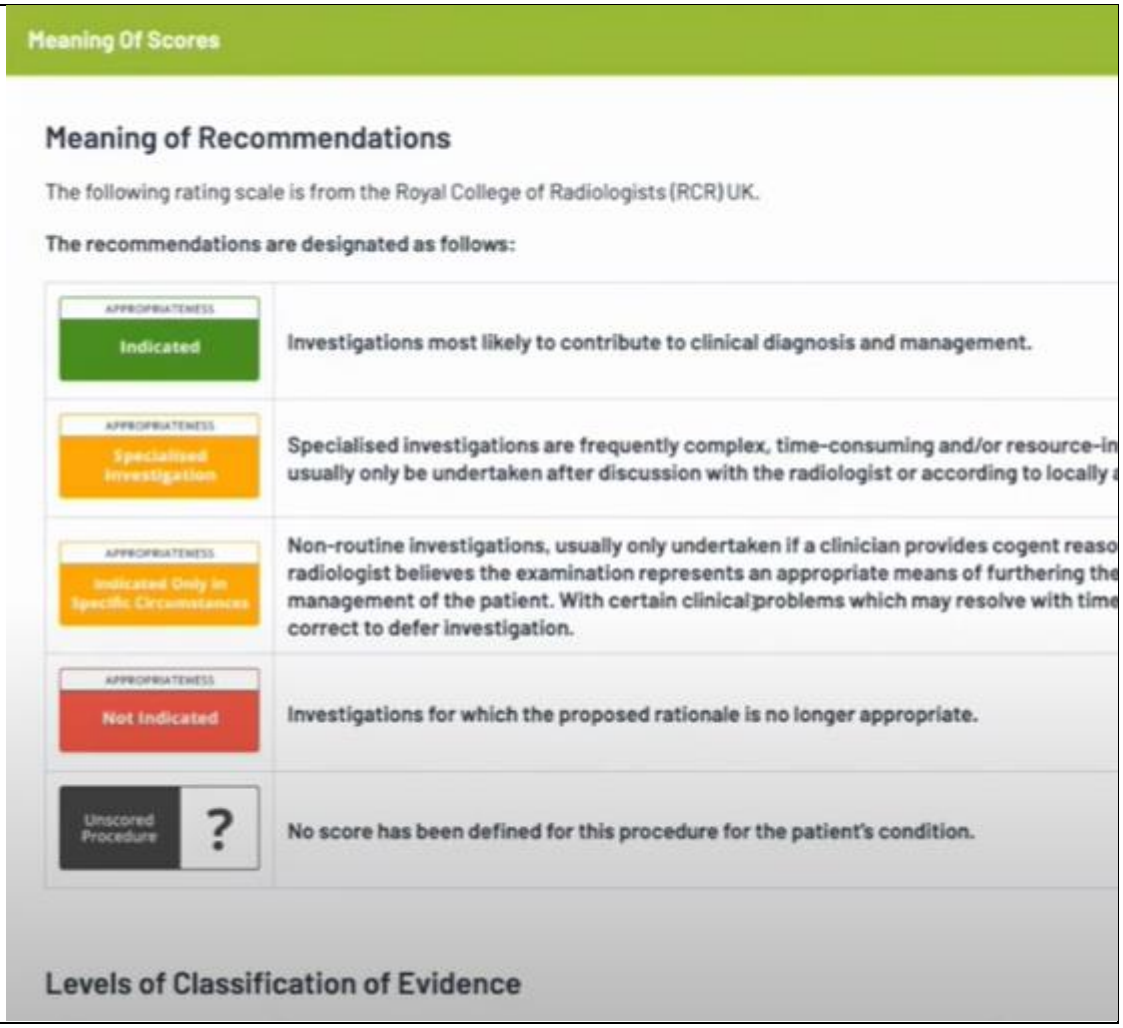


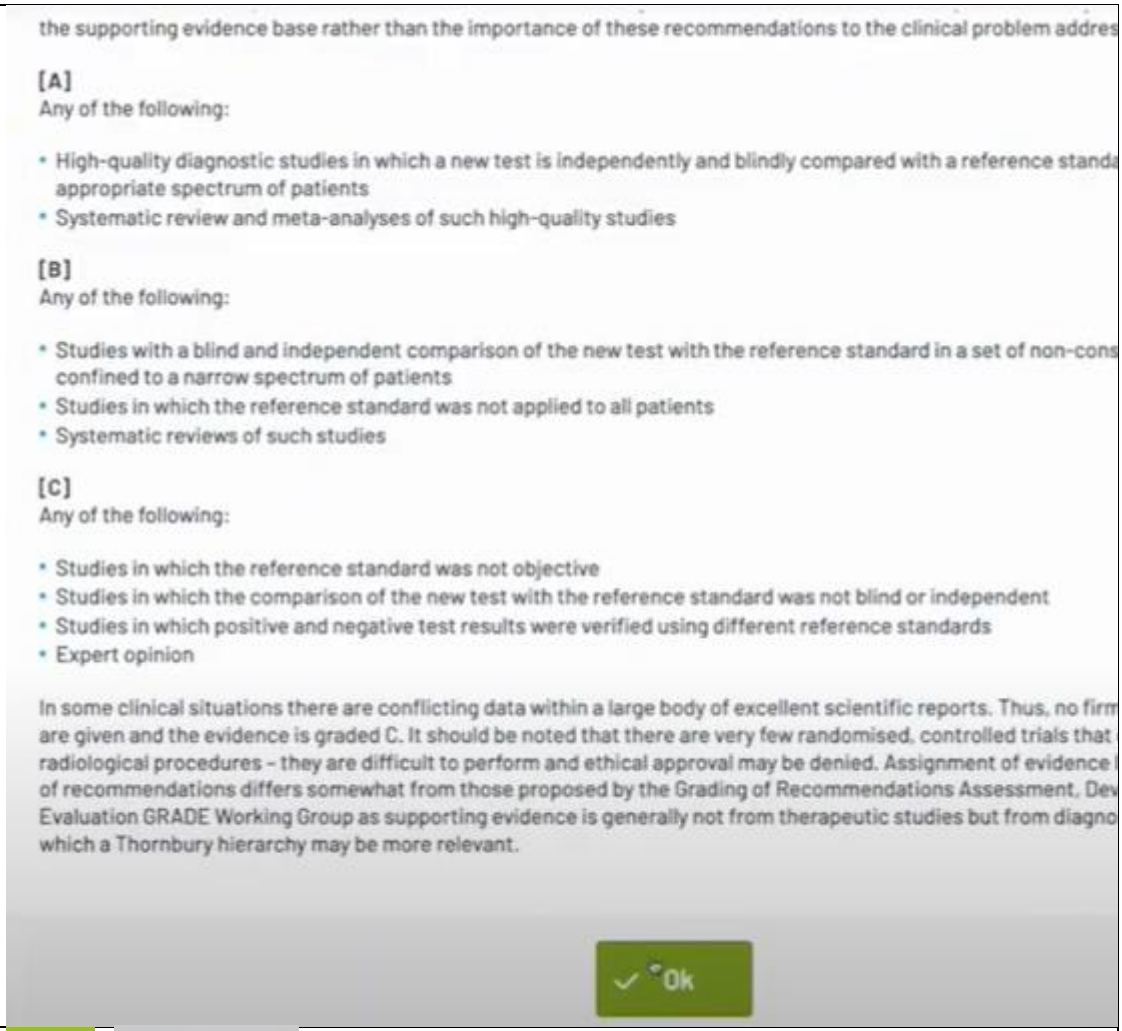
When you select a test, the CDS tool 'iRefer' will automatically launch in the patient context, presenting a list of symptoms that is relevant to your selection. This serves as a hint list, displaying some appropriate reasons for the imaging request. If the reason you need isn't on the list, a search field is available to browse the entire library for an alternative reason.

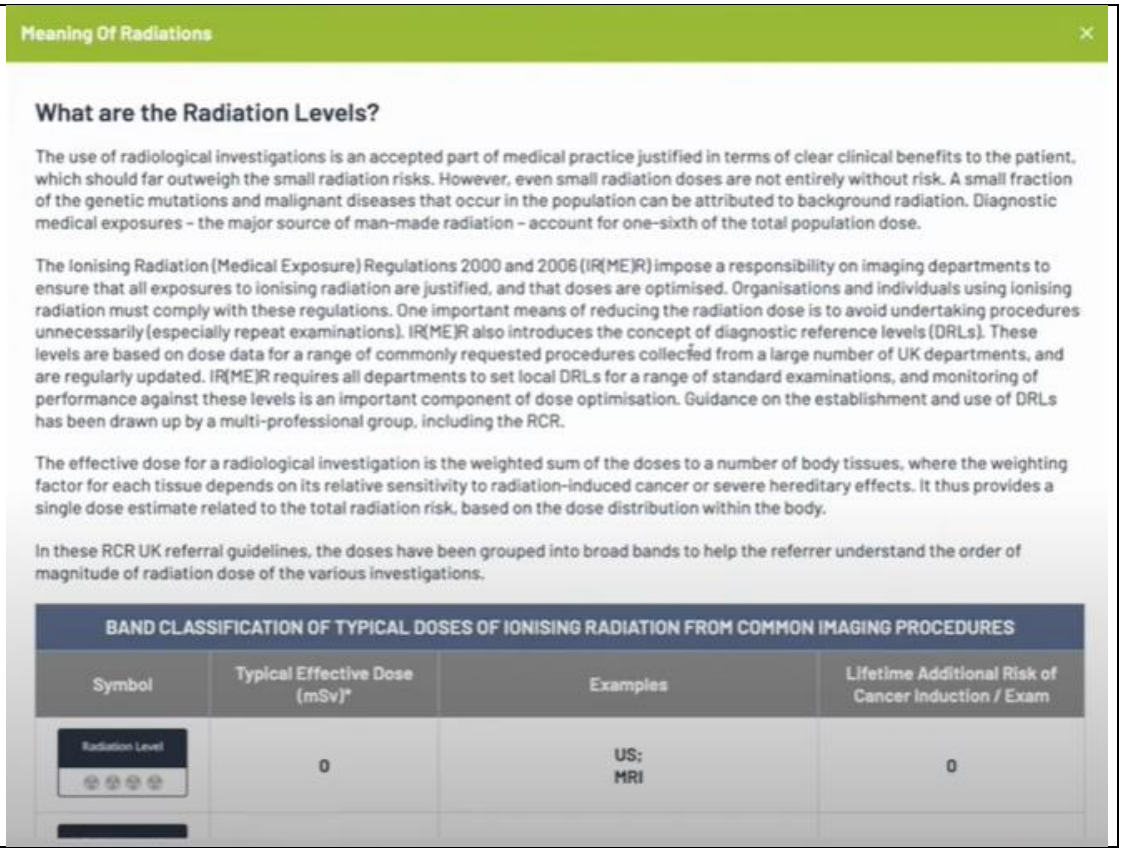
Click on the **'Primary Reason'**	
Dependant on the **Primary Reason** selected, you may need to answer additional questions before the system provides any recommendations	

Once you have completed the relevant question(s), the system will provide its recommendations, with the most appropriate investigation highlighted in green. This recommendation is automatically selected, so you can simply click **'SUBMIT ORDER'** to proceed. If the initial request is not the most suitable, it will still appear at the top of the list. It's marked in amber, indicating that it may be more suited as a specialist investigation.	
Appropriateness	
Click the **?** mark icon to open the legend, which provides additional information about the recommendations	

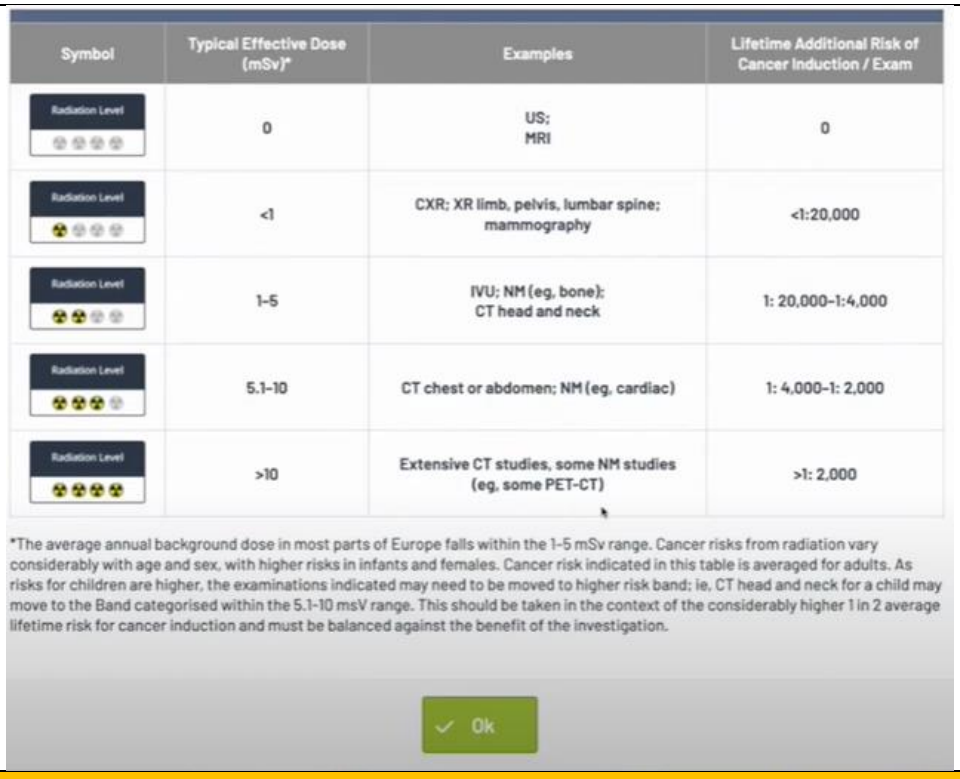
The **Meaning of Scores** will display.



Scroll down the screen to find levels of evidence information	
Click the **X** or **Ok** to return to the previous screen	
Levels of Radiation	

Click the **?** icon for information on radiation levels and IRMER guidance	

Scroll down the screen to view examples of the radiation levels



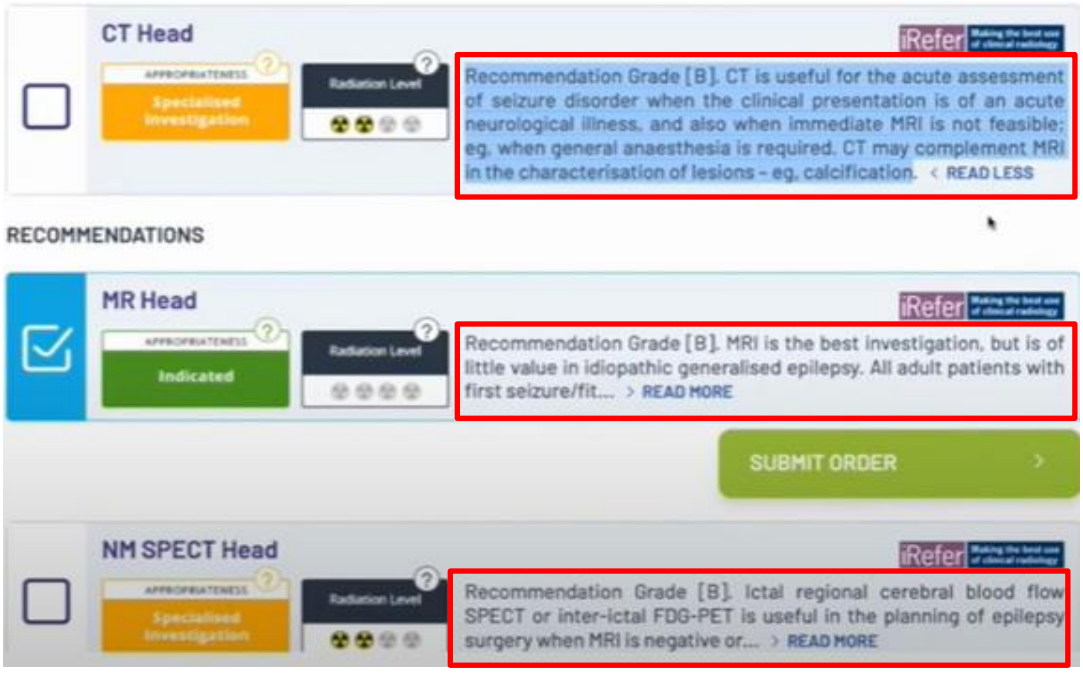
Symbol	Typical Effective Dose (mSv)*	Examples	Lifetime Additional Risk of Cancer Induction / Exam
Radiation Level	0	US; MRI	0
Radiation Level	<1	CXR; XR limb, pelvis, lumbar spine; mammography	<1:20,000
Radiation Level	1–5	IVU; NM (eg, bone); CT head and neck	1: 20,000–1:4,000
Radiation Level	5.1–10	CT chest or abdomen; NM (eg, cardiac)	1: 4,000–1: 2,000
Radiation Level	>10	Extensive CT studies, some NM studies (eg, some PET-CT)	>1: 2,000

*The average annual background dose in most parts of Europe falls within the 1-5 mSv range. Cancer risks from radiation vary considerably with age and sex, with higher risks in infants and females. Cancer risk indicated in this table is averaged for adults. As risks for children are higher, the examinations indicated may need to be moved to higher risk band; ie, CT head and neck for a child may move to the Band categorised within the 5.1-10 msV range. This should be taken in the context of the considerably higher 1 in 2 average lifetime risk for cancer induction and must be balanced against the benefit of the investigation.

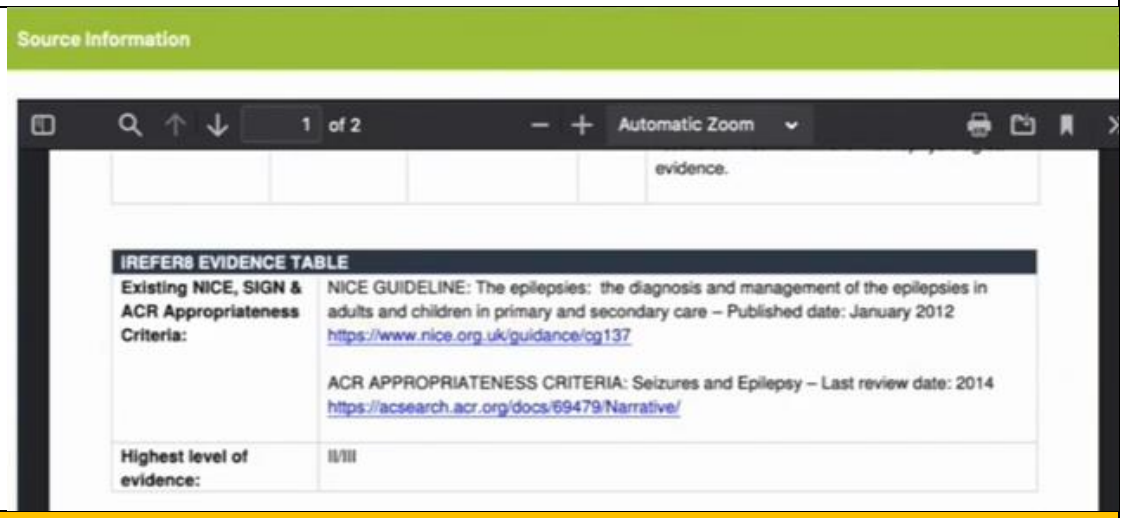
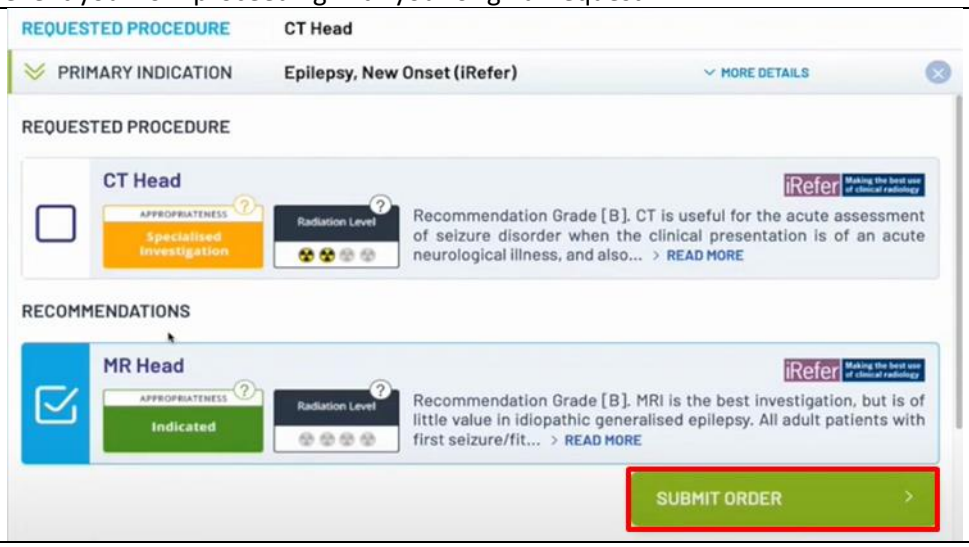
Ok

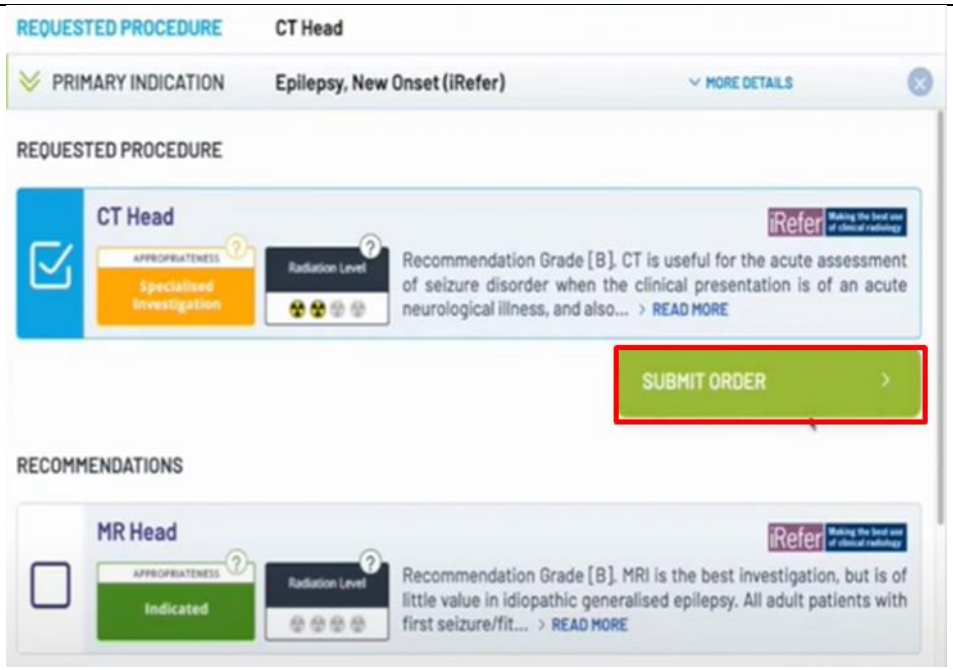
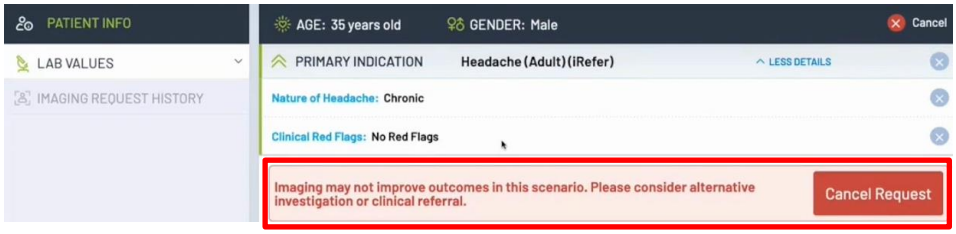
Advice

The advice text provides information on why an investigation may or may not be appropriate. Click ‘read more’ to view the full text.

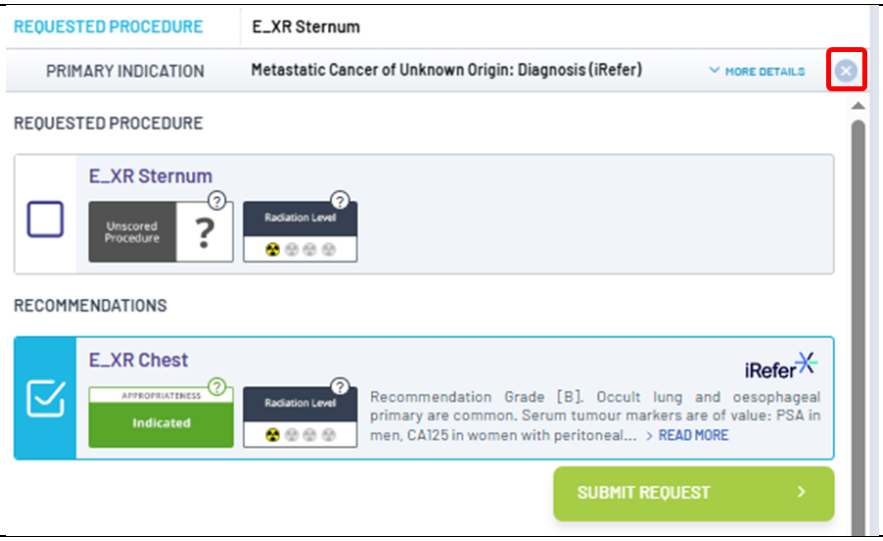


iRefer logo

Clicking on the **iRefer** logo will provide you with source guidelines for that symptom in PDF format, which you can save to your device if needed.	iRefer Making the best use of clinical radiology
The **Source Information** will include supplementary information and comments, and may also contain links to other resources and NICE guidance.	
Confirm, change or cancel based on guidance	
Note: The system will not prevent you from proceeding with your original request.	
To choose the recommended investigation, click **'SUBMIT ORDER'.**	

By placing a tick in the original request box, you can continue with the original request. Once selected click **'SUBMIT ORDER'.**	
Where the Appropriateness score is red 'Not indicated' you are able to **Cancel Request** using the red button Despite the recommendations shown as: **Appropriateness - Not Indicated** – Red, the system will not prevent you from proceeding with your original request by selecting the request and clicking **'SUBMIT ORDER'**	

For training purposes, you can also modify the symptomatology by cancelling the selection (press 'x' on the top right, as in the screenshot) and choose new symptoms.



After submitting your order, you will be redirected to ICE, where the requested investigation will be updated to "recommended investigation requested." ONLY proceed to complete the order as usual within the ICE system if you wish to request the test from Radiology. If a request is placed in error, please see the QRG for cancelling a request.