Project scope: FDG-PET imaging for the diagnosis of dementia

April 2024

Research question

Is there additional benefit, with regards to clinical and cost effectiveness, of performing FDG-PET imaging instead of current standard of care SPECT imaging in the diagnosis of dementia?

Inclusion criteria

The selection of studies for inclusion in the literature review element of the project will be based on the following criteria:

Population	Adults with symptoms that could be caused by dementia (for example, mild cognitive impairment), or adults with dementia in whom the subtype is not clear.
Intervention	FDG PET
Comparator	SPECT
Outcomes	Diagnostic accuracy, effectiveness for diagnosing dementia (and dementia sub-type), cost effectiveness, safety, patient/carer perceptions
Limits	English language

Planned activities

SHTG have agreed on the following activities to support the development of SHTG Recommendation on FDG-PET imaging for the diagnosis of dementia:

1. A comprehensive review of the clinical effectiveness evidence.

2. A comprehensive review of the economic literature and the provision of data, where possible, to inform a budget impact assessment (*to be determined as part of our contribution to the PET CT Review Group*)

Engagement

- A peer-review process will be conducted to give topic experts an opportunity to comment on the review of the evidence and the modelling work.

- A consultation exercise will be conducted to give topic experts an opportunity to comment on a draft recommendation.

End products

At the end of the project, SHTG will publish:

- An SHTG Recommendation on the use of FDG-PET imaging for diagnosing dementia, including a review of the clinical evidence, a review of the economic evidence, and economic modelling work

- A plain language summary

Timescales (approximate)

November 2024

Context considerations

SHTG retains the option to include additional research questions to help inform the work of the PET CT Review Group. For example, relating to the clinical effectiveness and patient acceptability of amyloid PET scans compared with other methods of diagnosing amyloid plaques (for example, lumbar puncture).

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