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Title **Positron Emission Tomography: Descriptive Analysis of Experience with PET in VA and Systematic Reviews of FDG-PET as a Diagnostic Test for Cancer and Alzheimer's Disease**

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Reference VA Technology Assessment Program Report, October 1996

Aim

To evaluate the experience of the U.S. Department of Veterans Affairs (VA) with positron emission tomography (PET) scanning and to determine whether VA should lift its purchasing moratorium and establish additional PET centers.

Conclusions and results

Researchers at VA credited PET as an important research tool. A wide range of research and clinical activities in VA PET centers remains largely uncoordinated. Research into the clinical utility of PET for the conditions selected in this review is preliminary and methodologically weak. Critical research into defining the clinical consequences of using PET for diagnosis has yet to be performed or reported.

Recommendations

The U.S. Department of Veterans Affairs should not invest in additional PET centers at this time. Rather, it should maximize the value of existing commitments, including implementing a PET registry, coordinating research efforts across VA PET centers and their academic affiliates, supporting rigorously designed studies that expand the body of PET literature and submitting currently unpublished data from studies of high methodologic quality for peer review publication.

Methods

Surveys and site visits were conducted of VA PET centers to gather data on clinical diffusion, operations, and research activities related to PET. A qualitative systematic review of published literature of PET in diagnosing selected cancers (head and neck, breast, lung, colorectal) and Alzheimer's disease was undertaken. Comprehensive literature searches were conducted using MEDLINE and other databases from 1991 through 1995, with focused hand searching of reference lists and selected literature searches from 1986 through 1991. Primary studies and systematic reviews published in English using fluorodeoxyglucose-positron emission tomography (FDG-PET) for selected indications were included and a critical appraisal framework was applied.

Further research/reviews required

See recommendations.

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