

# DXA VFA focus guide- referral and acceptance criteria

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## Introduction

Vertebral fractures are the most common osteoporotic fracture, increase morbidity and mortality and increase the risk of future fractures. They are often under-diagnosed, therefore opportunities to diagnose vertebral fracture within DXA services are important.

VFA scans, in the UK, are regulated under IR(ME)R and as such are subject to 'justification' and 'optimisation' as part of these regulations. Scans therefore must only be undertaken if they are referred by an entitled referrer, against published departmental acceptance criteria and justified by the IR(ME)R Practitioner or authorised under protocol by the operator. This may include opportunistic VFA scans in some patient categories.

This guide was developed from the ROS National Training Scheme for Bone Densitometry lecture course, ROS guidance for reporting of DXA scans, national and internationally published referral criteria.

## Point and Purpose

This guide sets out suggested referral and acceptance criteria for VFA scans, in patients that may be at risk of vertebral fragility fracture, as planned or opportunistic scans in a DXA service.

It is designed for DXA teams to be able to:

- Write and develop local referral acceptance criteria for VFA scans
- Support improvements for the identification of people at risk of vertebral fragility fractures
- Optimise resource in offering VFA scans to those who would most benefit

So that:

People with suspected and asymptomatic vertebral fractures are identified sooner, and people with very low BMD may access a wider range of bone protective therapies and reduce the risk of further fractures.

**NB: Referral criteria are the responsibility of the IR(M)R Practitioner and are detailed in local IR(ME)R Employers Procedures as part of justification and authorisation under protocol.**

# Opportunistic identification at the DXA appointment

Patients who may benefit VFA following DXA with one or more of the following



1) Measured height loss of more than 4cm since young adulthood\*



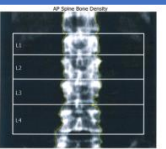
2) Appearances of vertebral height loss on DXA

	Area
L1	10.11
L2	9.16
L3	12.05
L4	12.66

3) Unexpected areal measurement reduction out of proportion of the expected pattern

	BMD
L1	0.683
L2	0.770
L3	0.745
L4	0.759

4) Increased local density out of proportion of the expected pattern *and* appearances of vertebral height loss



5) Visual appearances of vertebral fracture not previously noted on imaging *and* reduction in areal measurement



6) Where the identification of vertebral fracture would alter a patients management plan

\*Documented or recorded at time of DXA

# Planned VFA indications

## UK Published indications.



1) Postmenopausal women and men aged 50 and older and any of the following



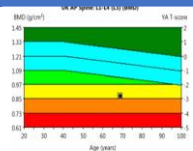
2) >4cm height loss



3) Kyphosis



4) Recent or current long term oral glucocorticoid therapy



5) T-score <2.5 SD at spine or hip

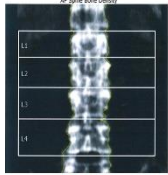


6) Acute onset of back pain with risk factors for osteoporosis

\*NOGG <https://www.nogg.org.uk/full-guideline/section-3-fracture-risk-assessment-and-case-finding>

# Planned VFA indications

## Internationally published indications



1) T-score  $< -1.0SD$  *and* one or more of the additional indications listed



2) Women aged 70 years or older



3) Men aged 80 years or older



4) Self reported but undocumented prior vertebral fracture

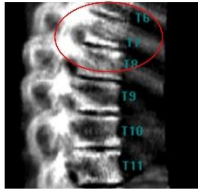


5) Glucocorticoid therapy equivalent to 5mg or more, of prednisolone per day for 3 months for more

\*ISCD Official Positions 2023- adult <https://iscd.org/official-positions-2023/>

## Consideration of further imaging with radiographs:

Local referral arrangement must be in place and appropriately qualified HCPs only should report the VFA.



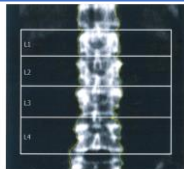
1) Where there are grade 1 (mild) vertebral fractures identified *and* there has been no recent previous imaging



3) Vertbrae are unidentified between T7 -L4



2) Where the patient has a known malignancy\*



4) Sclerotic or lytic changes or findings that cannot be attributed to benign causes such as degenerative change\*



\* Consider CT or MRI if local resources and processes allow, and the level of suspicion is high