

# Incorporation of Male Osteoporosis Screening Guideline in an Iowa Veteran Population



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## Introduction

- Osteoporosis is now thought to affect 20 percent of older males in their lifetimes, but routine screening by providers is not a common practice<sup>1</sup>.
- Currently, five authorities on osteoporosis including the National Osteoporosis Foundation, recommend screening males based on age and/or risk factors.
- Fractures associated with osteoporosis can cause acute and chronic pain, loss of mobility and independence, fear and anxiety about mobility, feelings of isolation, and depression<sup>2</sup>. Cost of a fracture is estimated at \$13,000<sup>3</sup>.
- Research shows that males have a higher mortality than female counterparts after hip fractures related to osteoporosis<sup>4</sup>.

## Purpose

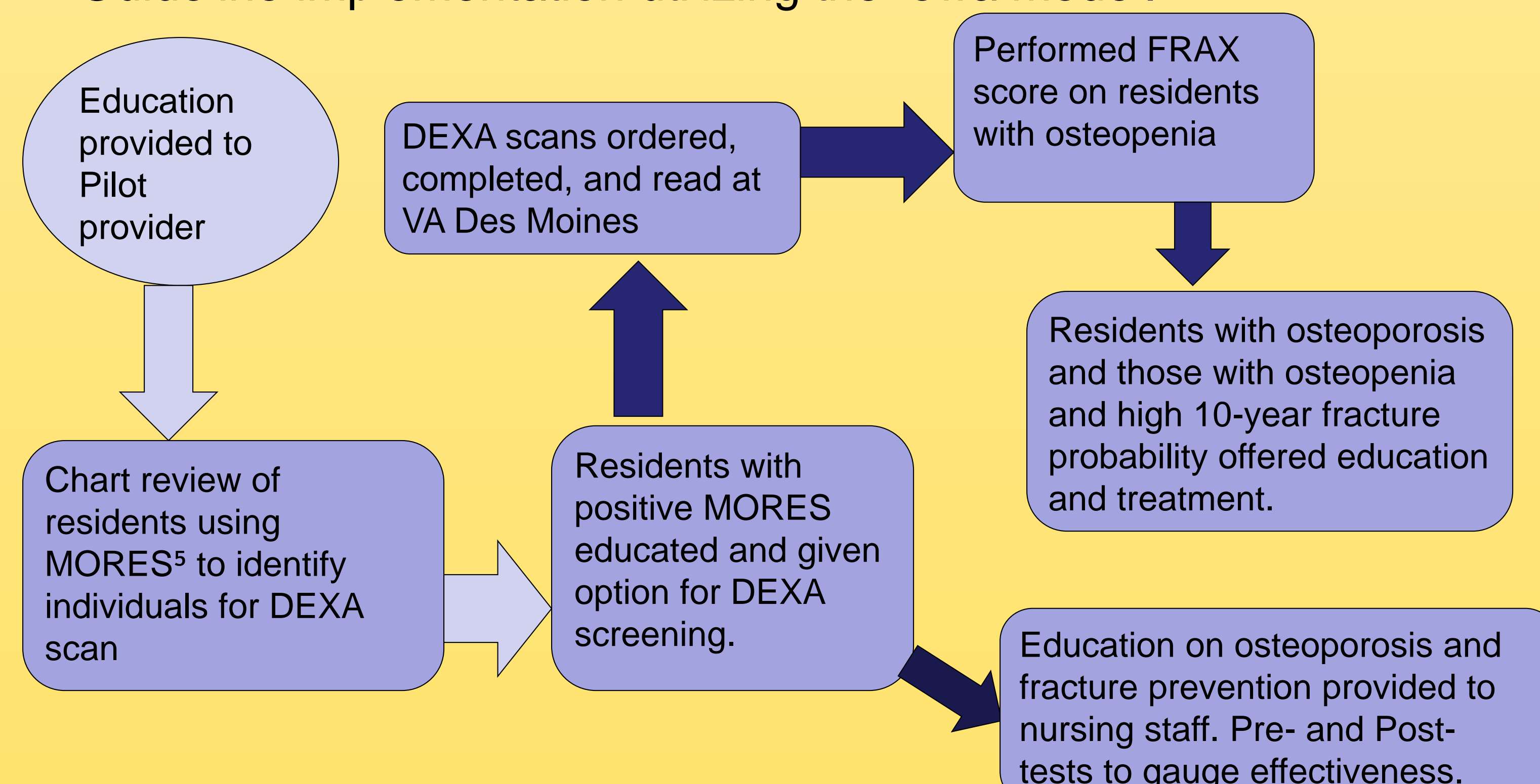
- Purpose: To increase Iowa Veteran's Home provider and nursing staff awareness of those at risk for osteoporosis, and to expand screening, treatment, and nursing interventions to prevent associated fractures

### Objectives

- Objective 1: Implementation of National Osteoporosis Foundation's guideline for male osteoporosis screening.
- Objective 2: Provide education to nurses on nursing interventions that could better reduce falls and fractures.
- Objective 3: Providers will implement treatment for all residents with osteoporosis.

## Methods

- Project was deemed not human subject research.
- Setting: Iowa Veteran's Home in Marshalltown, Iowa
- Population: Older male veterans
- Guideline implementation utilizing the Iowa model.



## Outcomes



## Evaluation

- Prior to implementation on the pilot unit, the provider was not routinely assessing or screening residents for osteoporosis.
- MORES was completed for all residents (n=62)
  - 74% (46/62) of current resident were deemed at risk based on MORES and offered bone density scanning.
  - 21.7% (10/46) accepted and completed screening.
  - 10% (1/10) were found to have osteoporosis.
  - 50% (5/10) were found to have osteopenia.
  - 10% (1/10) were found to have elevated 10-year hip or major osteoporotic fracture risk by FRAX.
  - 20% (2/10) of those screened were recommended for and started on treatment using alendronate and dietary supplementation.
- Survey results show that nursing staff was not aware of current prevalence estimates and did not feel confident in their ability to identify those at risk and to implement appropriate interventions.
  - Post test assessment shows that learning and confidence was improved.

Measure	Number of residents (n)	Percent (%)
Residents ≥ 70 or with MORES ≥ 6	46/62	74%
Residents who accepted and obtained DEXA screening	10/46	21.7%
Residents with osteoporosis (T-score <-2.5)	1/10	10%
Residents with osteopenia (T-score -1.0 to -2.5)	5/10	50%
Residents with normal bone density (T-score >-1.0)	4/10	40%
Residents with Osteopenia AND FRAX indicating elevated 10-year fracture risk (>3% hip or ≥20% major fracture event)	1/5	20%
Patients indicated for treatment given education and orders placed for treatment	2/10	20%

## Conclusions

- 74% of residents were deemed at risk on the pilot unit d/t comorbidities of advanced age, tobacco use, and COPD status.
- 10% (1/10) were found to have osteoporosis which is inconsistent with the available evidence.
- Nursing is not aware of increased prevalence estimates among male population and may not be adequately prepared to assess and implement appropriate interventions for those at risk for fracture due to osteoporosis.
- Results were disseminated to Iowa Veteran Home Providers in an effort to increase knowledge and to promote campus-wide rollout of the implementation.

## References

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