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Increase Rate of Osteoporosis Workup Ordered for Patients with Distal Radius Fractures

Problem Statement

- Osteoporosis results in brittle bones. As the condition is painless, people with osteoporosis are often unaware of their condition until their bone collapses or breaks. Bone Mineral Density (BMD) is thus carried out as a predictive and preventive measure.¹
- When an individual suffers a fragility fracture, he already has osteoporosis. As such, the individual needs to be treated for osteoporosis after the first fragility fracture.²
- Only 3.1% (baseline median from July to October 2021) of patients at the Distal Radius Fracture Clinic B1B had a BMD ordered for workup of osteoporosis.

References:

1. <https://www.healthhub.sg/a-z/diseases-and-conditions/616/bones-density-test-CGH>
2. Approach and assessment of osteoporosis: Identifying and managing risk. Ang SB. SFP2018; 44(3) : 7-10

Project Aim

To increase the rate of Osteoporosis Workup* ordered, in distal radius fracture patients aged >50 years old, at the first visit, in Clinic B1A# TTSH, from median 3.1% to 80% (stretch goal = 100%) over a sustained period.

* Osteoporosis Workup includes (ie. Labs + BMD), at first visit.

4 out of 8 consultant clinics

Inclusion: Patients >50 years old, ambulant, including patients who decline.

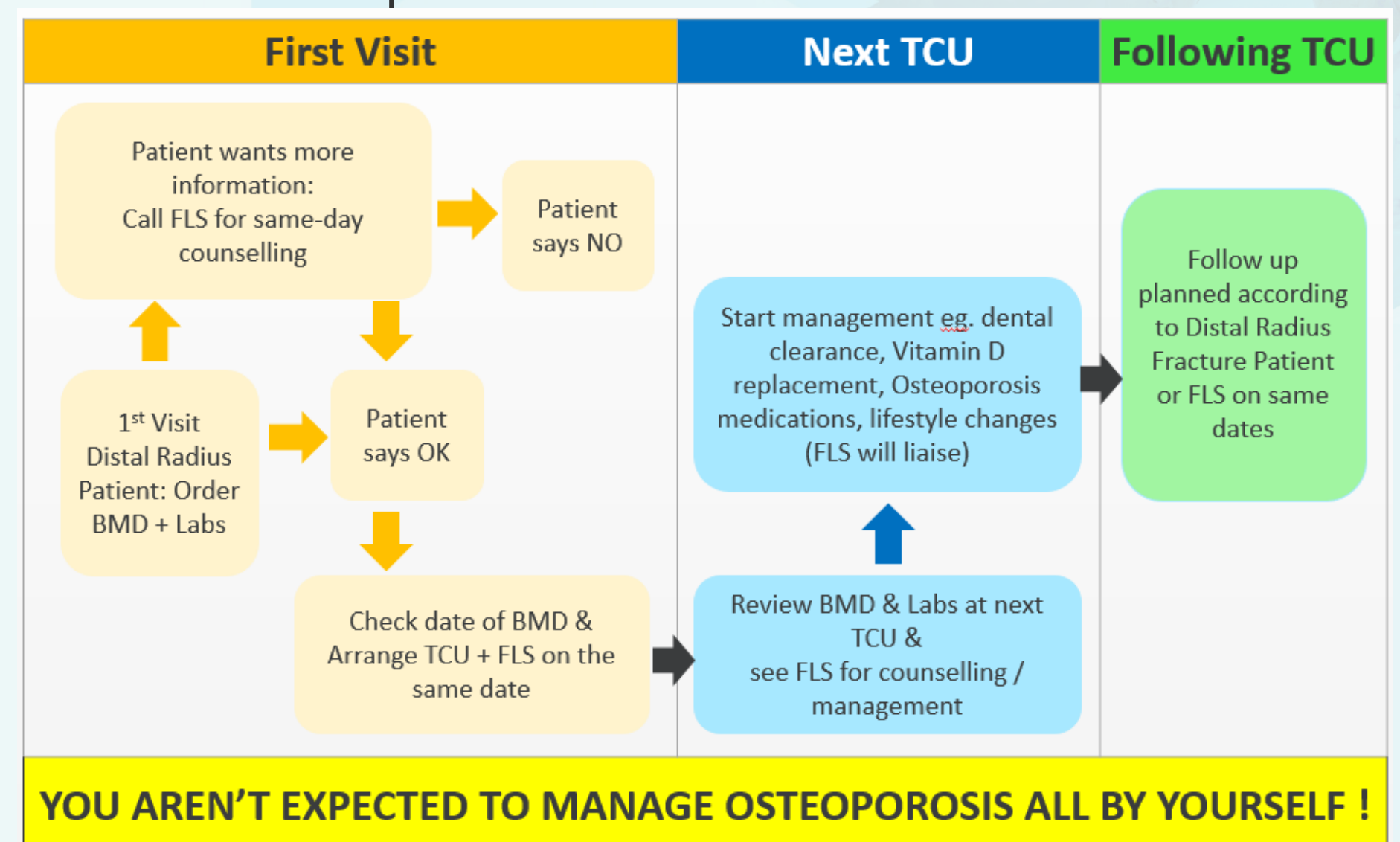
Exclusion: Patients with BMD done within 2 years, on follow up elsewhere, low life expectancy.

Lessons Learnt

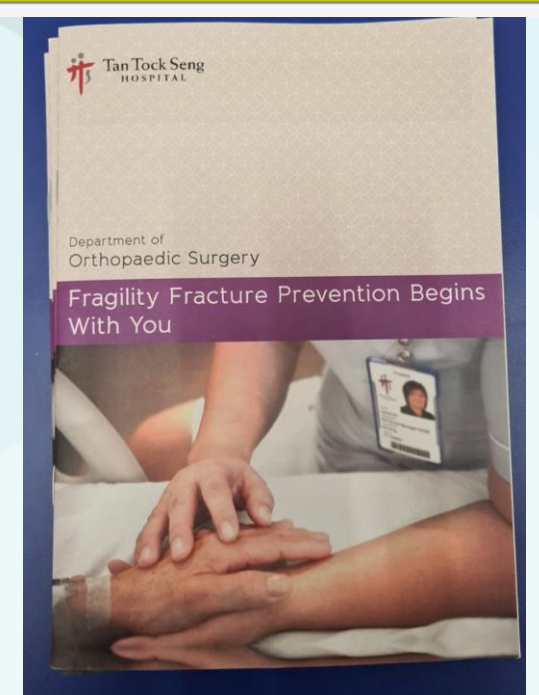
- Education is easy to implement, but should focus on simplification, not complication. Simplification is best.
- Make it easier for people to do the right things!
- Reminders help to sustain changes.
- Implementing protocols help standardization.
- Interventions must be hardwired into the system for sustainability.

Potential Solutions

- **Intervention 1:** Fracture Liaison Service Osteoporosis Talk and simplified talk with workflow

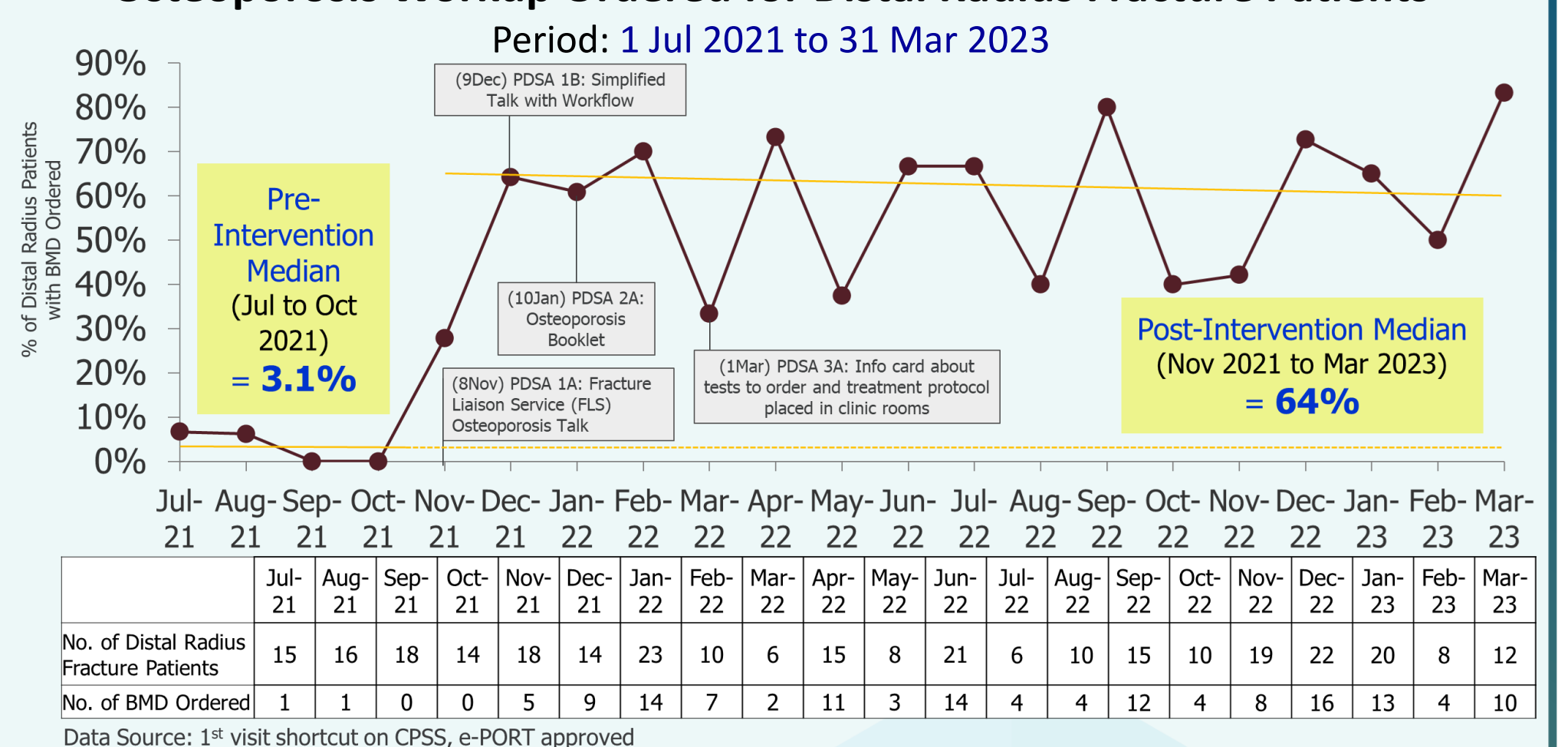


- **Intervention 2:** Information booklets on fragility fracture prevention
- **Intervention 3:** Information card about tests to order and treatment protocols placed in clinic rooms



Outcomes & Impacts

Osteoporosis Workup Ordered for Distal Radius Fracture Patients



The mean percentage of osteoporosis workup ordered for distal radius fracture patients improved from **3.1% to 61%** across 6 months (Jul 2021 to Jan 2022). During the sustainability period, the median further increased to **64%** (Nov 2021 to Mar 2023).

Total Cost Saving Per Patient
\$18,332

Assuming the osteoporosis is treated timely following workup