

# Patient Knowledge and Beliefs About Osteoporosis: Preliminary Results

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Pharmaceuticals



# Background

- Treatment of osteoporosis (OP) is dependent upon:
  - Decision to test for OP
  - Decision to start treatment after diagnosis
  - Adherence with therapy once started

# Background

- Testing for OP is low
  - HEDIS rate for screening and/or treatment of women  $\geq 67$  years old post-fracture is under 25% nationally
  - Glucocorticoid-induced osteoporosis screening rates  $\sim 25\%$  for women over 50

(Saag KG. J Rheumatol 2006)

# Background

- Adherence with therapy once started is suboptimal
  - ~50% of Medicare patients discontinue bisphosphonate by 12 months  
(Solomon DH. Arch Intern Med 2005)
  - ~50% of chronic glucocorticoid users discontinue bisphosphonate by 18 months  
(Curtis JR. Osteoporos Int 2006)

# Background

- There has been less attention to physician and patient decisions to start therapy once a diagnosis of osteoporosis has been made.

# Purpose

- The purpose of this study was to identify factors associated with treatment initiation in previously untreated patients with osteoporosis.

# Methods (1)

- Identified consecutive female patients with T-score  $\leq -2.5$  at spine, total hip, or femoral neck from 2/1/06 through 2/28/07 at a multispecialty group practice
  - Members of managed care plan with drug coverage
  - No prior OP treatment for  $\geq 6$  months, confirmed by both patient questionnaire and pharmacy database review
  - DXA reports typically sent to ordering provider electronically within 1 business day

## Methods (2)

- Within 3 weeks of the DXA exam, patients were sent a letter about the research study with opportunity to opt out
- 1 week later, survey sent (with \$5 cash)
- 1 week later, reminder card sent (if necessary)
- 1 week later, 2<sup>nd</sup> survey sent (if necessary)

# Questionnaire domains

- Knowledge about OP
- Trust in physician
- Physician-patient communication
- Beliefs about OP treatment and prescription medications in general

# Results

- From 2/1/06 through 2/16/07, 465 eligible women were identified
- 67 declined participation; 133 did not respond
- 265 surveys were returned by 2/28/07 (response rate 57%)

# Results

- Of the 265 respondents, 64% (169) reported having been contacted about their DXA results.
- Of those contacted, 53% (89) reported use of prescription OP meds at the time of the survey (Users).
- 86% of Users and 81% of Non-Users reported being told they had OP ( $p=0.6$ )

# Knowledge of Osteoporosis

	Mean Score
Users	55% correct
Non-users	53% correct

Knowledge score based on 9 dichotomously scored items

NS; P = .49

# Knowledge Questions

Easiest Question *(97% correct overall)*

Osteoporosis makes bones weak

Hardest Question *(19% correct overall)*

Osteoporosis causes stiffness and  
general soreness in joints

# Physician-Patient Communication

Mean Rating

Users 3.7

Non-users 3.9

*How good was this doctor at explaining what you need to know about your problems, how and why they occurred, and what to expect next?*

*(mean across 4 items scored 1-5; higher score = better communication)*

NS; P= .13

# Trust in the Physician

	Mean Rating
Users	4.2
Non-users	4.2

*All in all, I have complete trust in my doctor.*

*(Mean across 5 Items scored 1-5; higher score = greater trust)*

NS; P=.78

# Beliefs

- *OP medication can help my bones become stronger.*

Users

88% Agree

Non-users

59% Agree

P < .001

# Beliefs

- *Doctors are too quick to prescribe medications.*

Users 14% Agree

Non-users 48% Agree

P < .001

# Beliefs

- *Medications often cause more problems than they solve.*

Users

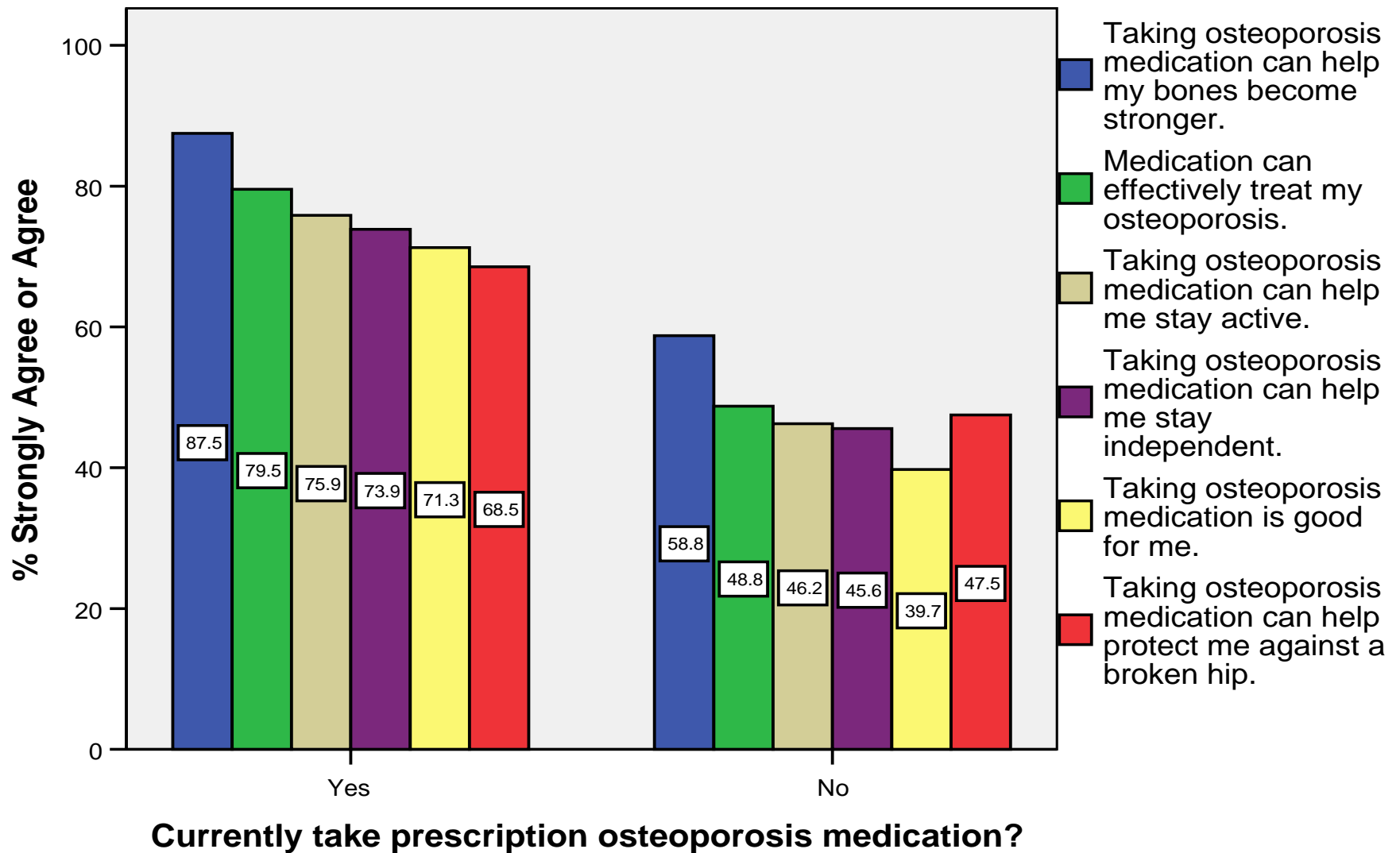
28% Agree

Non-users

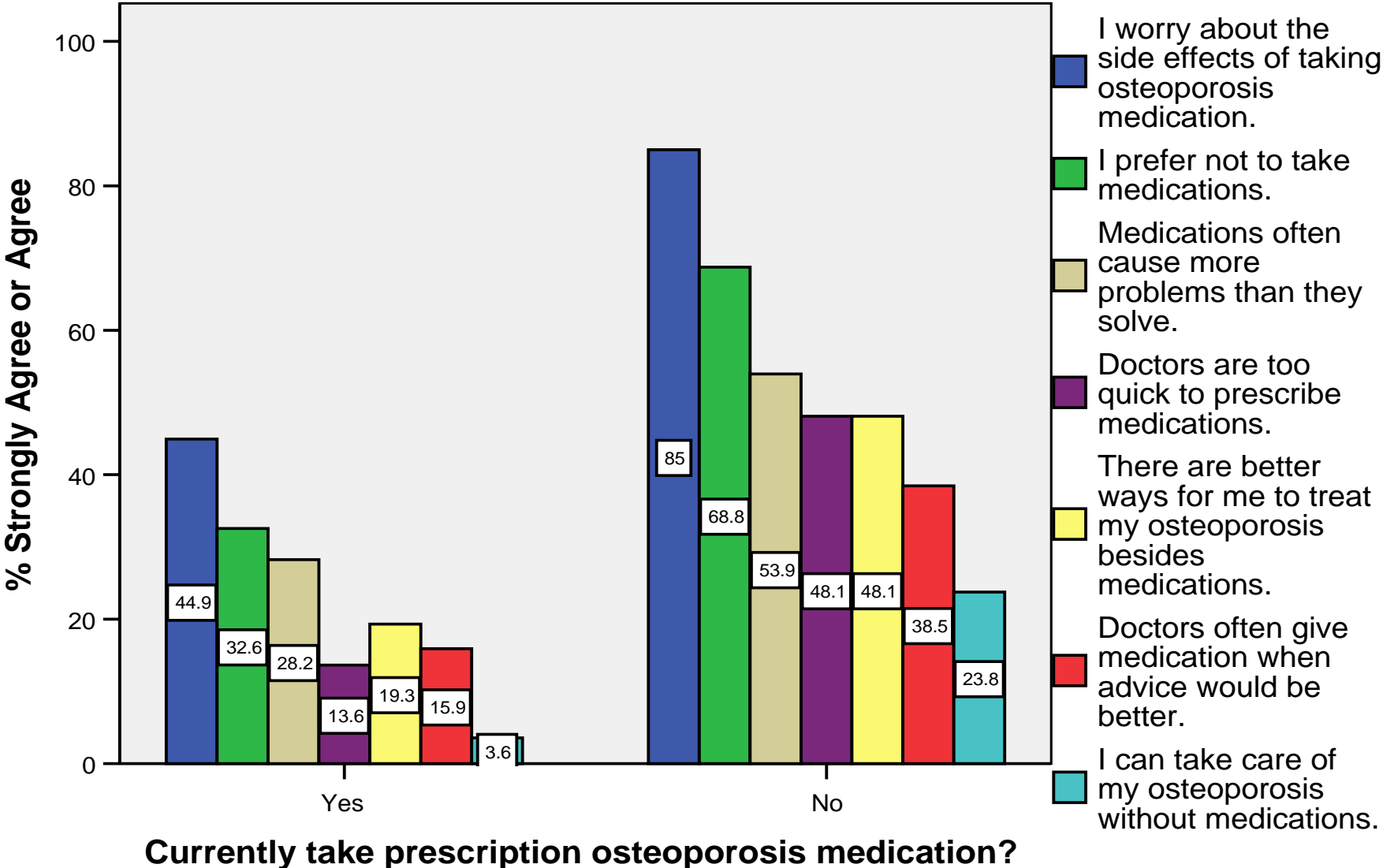
54% Agree

P = .001

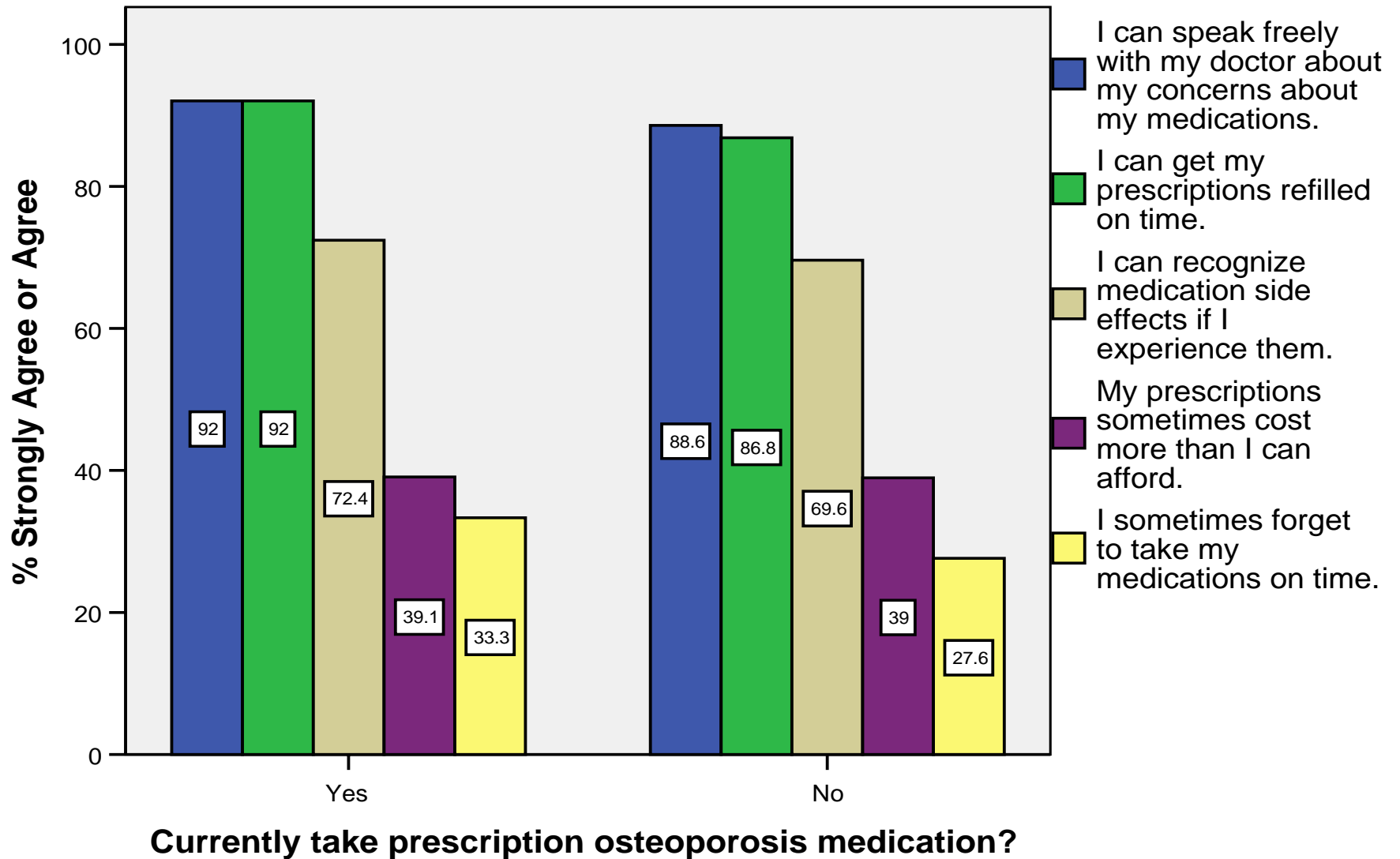
## Belief in the Benefits of OP Medication



# Negative Perceptions of Medications



## Practical Issues



# Conclusions (1)

- Only 53% of patients who reported being contacted by their physician about a bone density study documenting OP started therapy within ~1 month of the test
- The decision to start treatment did not depend on patient knowledge about OP, trust in the physician, or satisfaction with physician-patient communication

## Conclusions (2)

- The decision to initiate OP treatment appears to be strongly dependent upon patient belief in the effectiveness and safety of osteoporotic treatment in particular, and beliefs about prescription medications in general.

# Next Steps

- Complete enrollment
- Review pharmacy database over 1 year to capture late users of OP treatment and evaluate adherence with therapy
- 2<sup>nd</sup> survey and DXA 1 year after original DXA to evaluate bone density change

# Collaborators

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