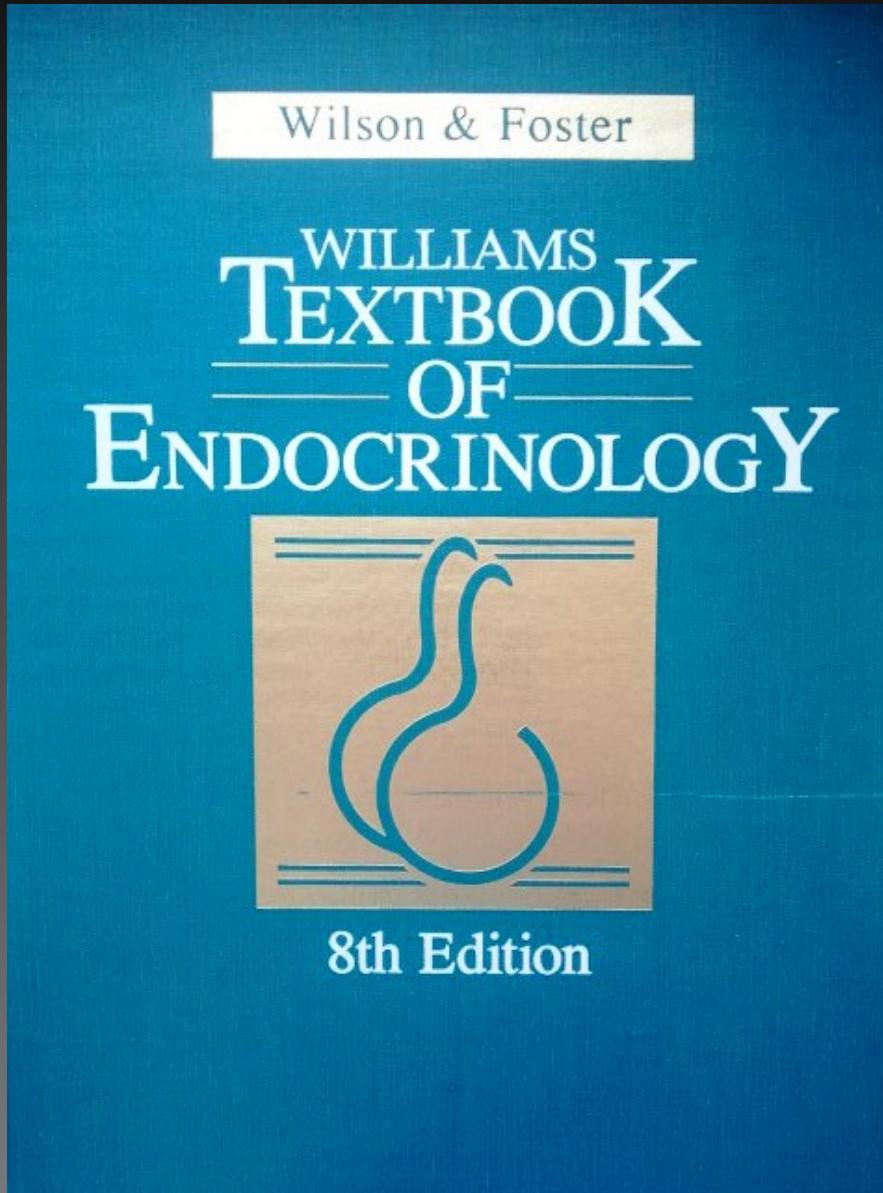


# I BISFOSFONATI nella terapia delle OSTEOPOROSI

**Michele Zini**

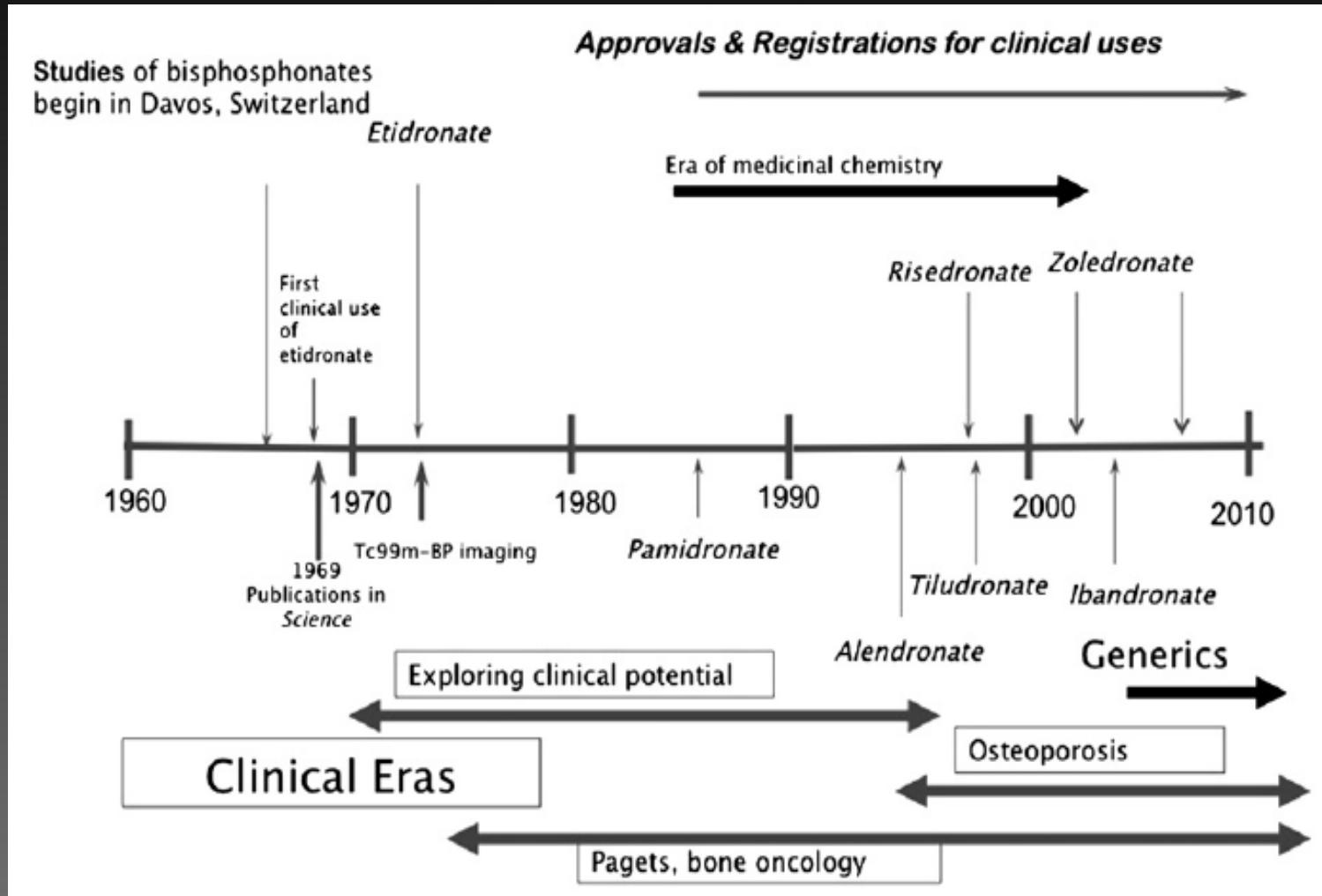
Unità Operativa di Endocrinologia  
Arcispedale S. Maria Nuova – IRCCS, Reggio Emilia



1992  
Terapia della osteoporosi:

- estrogeni
- fluoruri
- calcitonina
- calcio
- vitamina D
- etidronato
- tiazidici
- PTH 1-34

# History of the Bisphosphonates



# La GERARCHIA delle EVIDENZE

**Small RCTs**



**Meta-analyses of small RCTs**



**Large RCTs**



**Meta-analyses of large RCTs**

**Study mechanism**

Generate hypotheses  
for more reliable RCTs

Obtain reliable overall  
answers

Obtain a typical and unbiased  
estimate of treatment effect  
and to explore interactions  
among subgroups

# La GERARCHIA delle EVIDENZE - alendronato -

Small RCTs

1991-1995



Meta-analyses of small RCTs

Karpf DB et al.  
JAMA, 1997



Large RCTs

FIT 1996-1998



Meta-analyses of large RCTs

ORAG 2002

# META-ANALISI ORAG 2002

Cranney A et al., Endocr Rev 23: 508-516, 2002



Bari,  
7-10 novembre 2013

## Relative Risk with 95% CI for Vertebral Fractures for Doses of 5mg or Greater of Alendronate

### *Prevention Trials*

McClung 0.34 (0.04 to 3.25)

Hoskings 1.01 (0.02 to 50.71)

Pooled Prevention Estimate 0.45(0.06 to 3.15)

### *Treatment Trials*

Bone 0.68 ( 0.21 to 2.18)

Chesnut 0.25 (0.03 to 2.34)

Liberman (USA) 0.52 ( 0.24 to 1.15)

Liberman (Int) 0.52 ( 0.20 to 1.34)

Black 0.53 (0.41 to 0.69)

Cummings 0.51 ( 0.31 to 0.84)

Adami 0.51 (0.01 to 25.47)

Pooled Treatment Estimate 0.53 (0.43 to 0.65)

Pooled Estimate 0.52 (0.43 to 0.65)

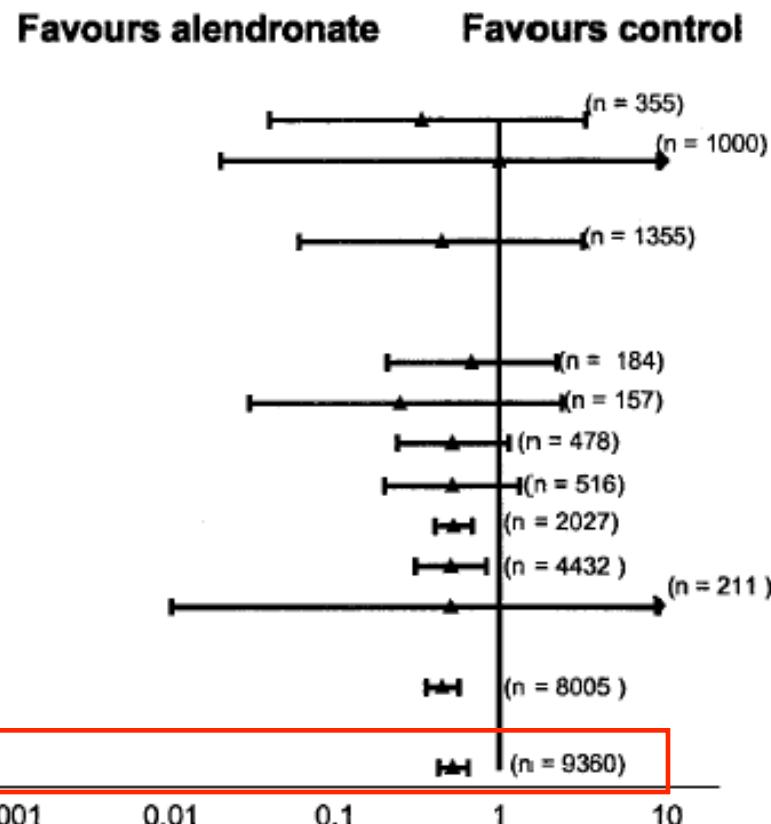


FIG. 2. RR for vertebral fractures with alendronate (5 mg and greater).



Arcispedale S. Maria Nuova  
IRCCS – Reggio Emilia

Michele Zini 2013

# I BISFOSFONATI oggi

- efficacia documentata molto solidamente
- tossicità ridotta – buona tollerabilità
- farmaci ad “ampio spettro”
- costo contenuto
- di prima scelta della maggior parte delle situazioni cliniche