Pain Management in Nursing Homes

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Purpose and Background

- Pain is a common problem among the nursing home population
  - Pain has been tracked as a quality measure by the Centers for Medicare & Medicaid Services (using Minimum Data Set or MDS) and reported on Nursing Home Compare since 2002
- This study is the first to provide national information about how pain is managed in nursing homes.

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2004 National Nursing Home Survey (NNHS) Sample Design and Data

Sample Design: stratified two-stage probability design

- 1st stage: national probability sample of 1500 nursing facilities were selected from sampling frame of US nursing homes
  - stratified by bed size and MSA status (sorted on additional factors within these strata) with final sample n= 1,174
- 2nd stage: Up to 12 current residents per facility selected at time of facility visit

Data

- Data were obtained through personal interviews with designated staff who used medical records/charts to answer questions about residents– no residents were interviewed
- Prevalence of pain: person in pain defined as one who reported or showed evidence of pain in past 7 days including grimacing or other non-verbal signs that would suggest pain
- Data were weighted to produce national estimates for nursing homes

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Data

- Pain intensity: assessed by pain scale score, by resident's self-description of pain, or observation by a staff member (if no rating available)
- Four pain levels: mild, moderate, severe, excruciating
  - In 5 point scale, 1= mild; 2-3=moderate, 4=severe, 5=excruciating
  - In 10 point scale, 1-3 = mild; 4-6 = moderate, 7-8 = severe; 9-10 = excruciating
- Pain severity defined as the most intense level over a 7 day period (or since admission if < 7 days)

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Data

- Pain management strategies collected were:
  - PRN order (as needed) for pain medication,
  - standing order (SO) for pain medication ,
  - non-pharmacologic strategies (NP) over the past week (e.g., heat/cold massage, positioning, music therapy, distraction);
  - other, or
  - any combinations of above
- Participation in special pain management program was also collected

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Methods

- **Residents are stratified**
  - by length of stay (short stay (SS) <= 100 days and long stay (LS) > 100 days) and
  - by pain levels (moderate and severe/excruciating in the last 7 days).
    - Focused on >= moderate pain level since pain management more important for persons with more intense pain
- **Pain management strategies classified into 2 categories** (to achieve adequate sample size)
  - PRN (singly or in combination with all other options (e.g., NP) except standing order)
  - Standing order (SO) includes SO only for pain medication, or a SO for pain medication plus other strategies, such as a PRN order for pain medication or non-pharmacologic strategies
- **Whether or not resident participated in a special pain management program**

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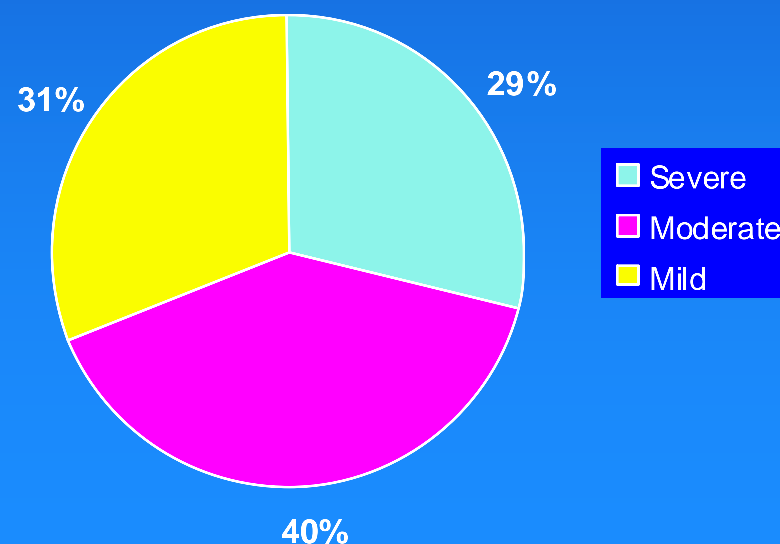
Results

- Among **all** residents, 23% had documented pain
  - 9% moderate; 7% severe/excruciating.
- Most residents with pain had moderate or severe pain

Pain Level Distribution for Residents with Any Pain, 2004



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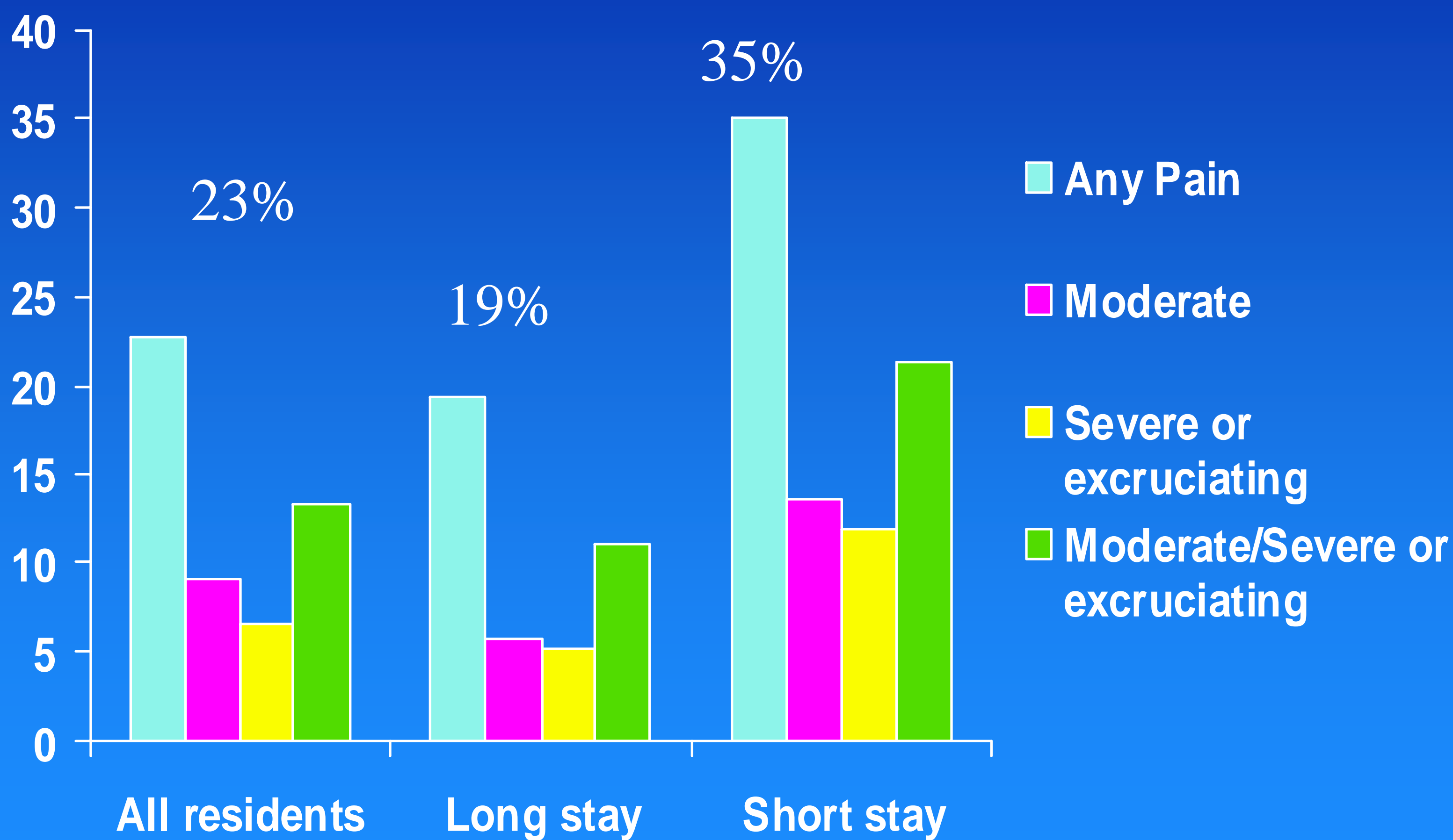
Prevalence of Pain



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Pain Management Strategies by Resident Type Among Various Pain Levels, 2004

	Any pain: Long Stay	Any pain: Short Stay	Mod. pain: Long Stay	Mod. pain: Short Stay	Severe/excru pain: Long Stay	Severe/excru pain: Short Stay	Mod/sev/excru pain: Long Stay	Mod/sev/excru pain: Short Stay
Standing Order	54.6	40.3	56.8	37.5	58.1	44.1	57	41
PRN	45.0	59.3	43.1	61.8	41.9	55.9	43	59

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Use of Special Pain Management Programs

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Results Summary

- Pain management strategies varied by length of stay
  - Short stay residents with documented pain used PRN (*generally a less preferable pain management strategy*) the most (59%) followed by SO+ (40%).
  - This was the reverse for long stay residents who used SO+ more often (55%) than PRN (45%).
- Pain management strategies varied by pain levels
  - Among all residents with moderate and severe/excruciating pain levels, slightly more had SO+ than had PRN to manage their pain.
  - As pain levels increased from moderate to severe/excruciating, the use of SO+ increased for both long stay and short stay residents

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Conclusions

- Assessment and management of pain among this population is complex, but considered an important indicator of quality of care and quality of life.
- Although appropriate in some cases, use of a PRN pain management strategy should largely be viewed as less than optimal care, especially for residents with moderate or severe/excruciating pain.
- More short stay residents are being managed with a PRN strategy and may benefit from better pain assessment to determine causes of pain and more aggressive treatment to manage pain, as pain can interfere with function and hinder recovery.

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