

*Prevalence of Nursing Home-  
Associated Infections in the  
Department of Veterans Affairs  
Nursing Home Care Units*

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# *Introduction*

- **Prior to 2005, the prevalence of nursing home associated infections (NHA I) among residents of VA nursing home care units (NHCU) was not known.**
- **In 2005, a VA Nursing Home Infection Surveillance Taskforce conducted a nationwide survey as a quality improvement initiative to enhance the quality of care and infection surveillance for VA nursing home veterans.**

## *Methods*

- **A Web-based one day point prevalence survey of Nursing Home Associated Infection using modified CDC definitions for health care-associated infections was conducted in all 133 VA NHCUs on November 9, 2005.**

## *Results (I): Prevalence*

- **From a total population of 11,475 VA NHCUR residents, 591 had at least one Nursing Home Associated Infection for a point prevalence rate of 5.2%.**
- **These 591 VA NHCUR residents had a total of 640 Nursing Associated Infections.**

## *Results (II): Types of NHAI*

<i>Types of NHAI</i>	<i>Residents with specific NHAI</i>	<i>Percent of all NHAI</i>
Symptomatic UTI	181	28.3
Asymptomatic Bacteriuria	79	12.3
Pneumonia	60	9.4
Skin Infection	59	9.2
Gastroenteritis	45	7.0
Soft Tissue Infection	37	5.8
All Others	179	28.0
Total	640	100

## *Results (III): Age Distribution*

<i>Age Groups</i>	<i>Residents</i>	<i>Residents with NHA1</i>	<i>NHA1 Prevalence</i>
< 60	2,143	104	4.9%
60-79	4,984	269	5.4%
≥ 80	4,348	218	5.0%
Total	11,475	591	5.2%

## *Results (IV): Prevalence of Devices*

<i>Indwelling devices</i>	<i>Residents</i>	<i>Residents with NHAI</i>	<i>Percent with NHAI</i>
No device	8,658	282	3.3
One or more devices	2,817	309	11.0*
Total	11,475	591	5.2

\* P value (vs. No device) < 0.001

## *Results (V): Types of Devices*

- The 2,817 residents with one or more indwelling devices had a total of 3,528 devices.
- Five most frequently employed devices accounted for 79.3% of all devices used :

Indwelling urinary catheter (1,233)

Percutaneous gastrostomy tube (670)

IV Peripheral line (308)

Peripherally inserted central catheter (303)

Suprapubic urinary catheter (283)

# *Prevalence of NHAI*

<i>Sites of Survey</i>	<i>Residents</i>	<i>Year Surveyed</i>	<i>Prevalence of NHAI</i>
<b>53 Maryland Nursing Homes</b>	<b>4,259</b>	<b>1991</b>	<b>4.4%</b>
<b>830 French Public Hospitals</b>	<b>52,943</b>	<b>1996</b>	<b>7.6%</b>
<b>70 Norwegian Long Term Care Facilities</b>	<b>13,762</b>	<b>2000</b>	<b>6.5%</b>
<b>133 US VA NHCUs</b>	<b>11,475</b>	<b>2005</b>	<b>5.2%</b>

## *Summary (I)*

- **This is the largest survey of NHA I in the U.S. involving 11,475 residents in 133 VA NHCUs with a point prevalence of 5.2%.**
- **There was no statistical difference in the prevalence of Nursing Home Associated Infection among different age groups.**
- **Urinary tract infection, asymptomatic bacteriuria, skin infection, gastroenteritis and soft tissue infection were most prevalent, constituting 72 % of all NHA I.**

## *Summary (II)*

- Residents with indwelling device use were 3 times more likely to have a Nursing Home Associated Infection.
- Indwelling urinary catheter, percutaneous gastrostomy tube, iv peripheral line, peripherally inserted central catheter, and suprapubic urinary catheter were most common, accounting for 79.3% of all devices used.

## *Conclusion*

**There are effective infection surveillance and control programs in VA Nursing Home Care Units with a point prevalence of Nursing Home Associated Infection of 5.2%.**