

Osteopathic manipulative treatment improves outcomes for elderly pneumonia patients

August 29 2016

Table 2.
Comparison of Treatment Groups on Hospital Length of Stay by Age, PSI Class, and Pneumonia Type Subgroups in Older Adults Hospitalized for Pneumonia

Subgroups	ITT Analysis (N=387)				PP Analysis (N=318)			
	Group, Median (95% CI), d			P Value ^a	Group, Median (95% CI), d			P Value ^a
	OMT	LT	CCO		OMT	LT	CCO	
Age, y				.60 ^b				.30 ^b
50-74	3.4 (2.6-4.4)	3.8 (3.0-4.6)	4.0 (3.4-4.8)	.94	2.9 (2.6-3.4)	3.7 (2.9-4.5)	4.0 (3.4-4.8)	.006 ^c
≥75	4.5 (3.5-5.1)	4.9 (4.0-5.8)	4.8 (3.9-5.8)	.48	3.9 (3.5-5.1)	4.3 (3.6-5.0)	4.8 (3.9-5.8)	.18
PSI Class				.09 ^b				.25 ^b
I-II	2.8 (1.9-5.6)	3.5 (2.9-5.0)	3.0 (1.8-3.9)	.10	2.6 (1.8-2.8)	3.0 (2.8-4.6)	3.0 (1.8-3.9)	.14
III	3.4 (2.9-4.7)	3.9 (2.8-4.5)	4.0 (3.5-4.8)	.96	3.2 (2.7-4.4)	3.0 (2.5-4.5)	4.0 (3.4-4.8)	.26
IV	4.1 (3.5-5.1)	4.8 (3.8-5.9)	5.4 (4.2-6.7)	.06	3.8 (3.4-4.5)	4.8 (3.7-5.8)	5.0 (4.2-6.2)	.01 ^c
V	5.0 (3.5-7.0)	7.7 (5.6-9.4)	6.2 (3.3-8.2)	.30	4.9 (2.3-7.0)	5.9 (2.8-9.8)	6.2 (3.3-8.2)	.40
Type of Pneumonia				.71 ^b				.79 ^b
Community-acquired	3.8 (3.4-4.7)	4.0 (3.7-4.9)	4.3 (3.7-4.9)	.79	3.5 (2.9-3.9)	3.8 (3.0-4.8)	4.0 (3.6-4.9)	.08
Nursing home-acquired	4.7 (3.3-5.1)	5.6 (3.7-6.1)	4.8 (3.7-6.6)	.53	4.3 (2.8-5.1)	4.6 (3.6-5.8)	4.8 (3.7-6.6)	.19

^a P value comparing between the treatment groups within each subgroup calculated using a stratified (by study site) Cox proportional hazards model.

^b P value for interaction of the treatment groups with the subgroups calculated using a stratified Cox proportional hazards model.

^c Hospital length of stay was shorter for the osteopathic manipulative treatment (OMT) group than the light touch (LT) and conventional care only (CCO) groups.

^d Hospital length of stay was shorter for the OMT group than the CCO group, but neither was different from the LT group.

Abbreviations: ITT, intention to treat; PP, per protocol; PSI, Pneumonia Severity Index.

Key findings by per-protocol analysis of the younger subgroup found that OMT decreased hospital stay by 1.1 days compared to those who received conventional care only. By intention-to-treat analysis of the older subgroup, in-hospital mortality rates were 11 percent lower to the conventional-care only group. OMT also reduced the in-hospital mortality rates of those with the highest severity of illness. Credit: *The Journal of the American Osteopathic Association*

An analysis of multicenter randomized controlled clinical trial found osteopathic manipulative treatment (OMT) for pneumonia reduced length of hospital stay in adults 50 to 74 years old and lowered in-hospital mortality rates for patients 75 and older. The study results published in *The Journal of the American Osteopathic Association*.

The study analyzed 375 patients ages 50 or older who were randomly assigned to three groups, either receiving OMT, a light touch or conventional care only. Differences between treatment groups were evaluated for subgroups of participants based on their age, Pneumonia Severity Index and type of pneumonia. The data were analyzed by intention-to-treat analysis of all participants and by per-protocol analysis of participants who finished the study without missing any protocol treatments.

Key findings by per-protocol analysis of the younger subgroup found that OMT decreased [hospital stay](#) by 1.1 days compared to those who received conventional care only. By intention-to-treat [analysis](#) of the older subgroup, in-hospital mortality rates were 11 percent lower to the conventional-care only group. OMT also reduced the in-hospital [mortality rates](#) of those with the highest severity of illness.

"Osteopathic manipulative therapy was developed in the pre-antibiotic era specifically for the management of pneumonia. While antibiotic therapy is the current standard of care, the emergence of resistant bacteria is a global threat and provides an incentive to explore adjunct treatments that can improve their efficacy," said James Bailey, DO, assistant professor in physical medicine and rehabilitation at Rowan University School of Osteopathic Medicine. "This study should encourage physicians to use their osteopathic techniques when treating older patients with pneumonia."

Pneumonia is a leading cause of death for elderly patients, with over 90

percent of [pneumonia](#)-related deaths among those 65 and older. Previous studies have also shown that OMT can improve the efficacy of antibiotics in [pneumonia patients](#).

Osteopathic manipulative techniques can help treat structural and tissue abnormalities, relieve joint restriction and misalignment, restore muscle and tissue balance and promote the overall movement blood flow throughout the body. When appropriate, it can complement, and in some cases replace, medications or surgery.

Provided by American Osteopathic Association

Citation: Osteopathic manipulative treatment improves outcomes for elderly pneumonia patients (2016, August 29) retrieved 23 April 2024 from <https://medicalxpress.com/news/2016-08-osteopathic-treatment-outcomes-elderly-pneumonia.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--