


27th **ECCMID**

Vienna, Austria
22 – 25 April 2017

The congress of  ESCMID

Session: OS024 Confronting the threat of resistance in Gram-negatives

Category: 8e. Infection control interventional trials

22 April 2017, 15:18 - 15:28
OS0110

Association between contact precautions and symptoms of depression and anxiety: a meta-analysis

Marin Schweizer*¹, Rajeshwari Nair², Michihiko Goto³, Daniel Livorsi⁴, Erin Balkenende², Nasia Safdar⁵, Daniel Morgan⁶, Eli Perencevich¹

¹*University of Iowa; Internal Medicine*

²*University of Iowa*

³*University of Iowa/Iowa City Vamc; Internal Medicine, Infectious Disease*

⁴*University of Iowa, Va Medical Center*

⁵*University of Wisconsin*

⁶*University of Maryland*

Background: Contact precautions are typically used to prevent transmission of multidrug-resistant organisms (e.g. methicillin-resistant *Staphylococcus aureus*, vancomycin-resistant *enterococci*, resistant gram-negative organisms) from infected or colonized patients to other hospitalized patients. In some studies, contact precautions have been associated with depression and anxiety; however, the magnitude of association is not known. It is possible that patients experience symptoms of anxiety and depression from their underlying illness rather than from contact precautions.

Material/methods: We conducted a systematic literature review in PubMed, PsychInfo, EMBASE and CINAHL to identify studies published from 2008-2016 that measured the association between contact precautions and depression or anxiety. We also included studies found in published systematic literature reviews that evaluated the literature between 1970-2008. Studies were excluded if they did not have a control group. Pooled mean differences were calculated using random effects models with inverse variance weighting.

Results: 5,329 titles were screened for inclusion. Overall, 11 studies evaluated the association between contact precautions and depression or anxiety with a control group not under contact precautions; 4 (36%) found a significant association between contact precautions and increased depression and anxiety, 5 (46%) did not find statistically significant associations, and 2 (18%) found significant increases in depression but not anxiety among contact precautions patients. Of the 6 studies that statistically adjusted for baseline measures or other confounders, 3 found significant associations between contact precautions and depression and only 1 found significant associations between contact precautions and anxiety. Studies used a variety of tools to assess anxiety and depression including Hospital Anxiety and Depression Scale (HADS) (n=7), Hamilton Anxiety and Depression Rating Scale (n=1), Beck Depression Inventory (n=1), State Anxiety Inventory (n=1), Profile of Mood States (n=2), and Geriatric Depression Scale (n=1). When we pooled the 5 studies that evaluated depression and anxiety separately using the mean HADS-depression score and mean HADS-anxiety score, we found that contact precautions were associated with significantly higher levels of depression (pooled mean difference=2.36; 95% confidence interval [CI]=0.76, 3.97) and anxiety (pooled mean difference=2.21, 95% CI=0.74, 3.67).

Conclusions: Patients on contact precautions have twice the rates of depression and anxiety. However, studies that statistically adjusted for confounders were less likely to find statistically significant associations. More high-quality studies that correct for baseline anxiety and depression scores and use consistent validated measures need to be performed.