Appendix H: Study characteristics: Fungal infections, Mycoses

Article title: The Epidemiology of Skin Conditions in the Aged: A Systematic Review.
Journal: Journal of Tissue Viability
<table>
<thead>
<tr>
<th>Nr.</th>
<th>Source (Author and year)</th>
<th>Country</th>
<th>Design/Measure</th>
<th>Setting</th>
<th>Inclusion criteria</th>
<th>Sample characteristics</th>
<th>Results</th>
<th>Remarks</th>
<th>Risk of bias</th>
</tr>
</thead>
</table>
| 1   | Ananae et al. 2007 [1]   | Tunisia | Cross-sectional/Prevalence | Medical practices | - >65 years  
- Onichodystrophy of hand or nails | 1. Number of practices: 1  
2. N = 290  
3. Age: >65 years; mean age: 72.3 years  
4. Gender: unclear | Onychomycosis:  
Clinical: 120/290, 41.4%  
Laboratory confirmed: 97/290, 33.5%  
Skin lesions: 79/290, 27.2%  
- Intermittent mycoses 65/79, 82.3%  
- Plantar hyperkeratosis: 24/79, 31.7% | - | Moderate |
2. N = 219  
3. Age groups: 65-74; ≥75 years  
4. Gender: unclear | Erysipelas incidence rate per 1000 patient-years:  
1994-1995: 2.89 n= 32 (65-74); 3.11 n= 23 (≥75)  
- Having full Medicare coverage for at least 13 consecutive months  
- Living in one of the 50 US-States or Washington DC  
- Not having claims for any endemic mycosis during a 12 month period | 1. N = 1,913,247  
2. Age: ≥65 years  
3. Gender: 914,532/1,913,247  
47.8% female | Incidence of endemic mycoses: 775/1913247, 0.04%  
Histoplasmosis: n= 357, 3.4%  
Coccidioidomycosis: n= 345, 3.2%  
Blastomycosis: n= 74, 0.7% | - | n.a. |
| 4   | Brilhante et al. 2005 [4] | Brazil  | Cross-sectional/Prevalence | Medical practices | Clinical lesions of the nails | 1. Number of practices: 1 | Onychomycosis:  
70-79: 29% female; 17% male  
> 80: 9% female; 4% male | Results: estimated | Moderate |
<table>
<thead>
<tr>
<th>Study</th>
<th>Country</th>
<th>Type</th>
<th>Setting</th>
<th>Number of institutions:</th>
<th>N =</th>
<th>Age groups:</th>
<th>Gender:</th>
<th>Report Quality:</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Costa-Orlandi et al. 2012 [5]</td>
<td>Brazil</td>
<td>Cross-sectional/Prevalence</td>
<td>1</td>
<td>not reported for 65+ years (total: 976)</td>
<td>N = not reported</td>
<td>Age groups: 70-79; &gt;80 years</td>
<td>Gender: unclear</td>
<td>Moderate</td>
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<tr>
<td>6</td>
<td>Djeridane et al. 2006 [6]</td>
<td>Algeria</td>
<td>Cross-sectional/Prevalence</td>
<td>Not reported</td>
<td>Number of institutions: 1</td>
<td>N = 70</td>
<td>Age: &gt;70 years</td>
<td>Gender: 100% male</td>
<td>Moderate</td>
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<tr>
<td>7</td>
<td>Gunduz et al. 2013 [7]</td>
<td>Turkey</td>
<td>Cross-sectional/Prevalence</td>
<td>Informed consent</td>
<td>Number of institutions: 3</td>
<td>N = 214</td>
<td>Age: 65-97 years, mean age: 76.9 years</td>
<td>Gender: 59/214 27.6% female</td>
<td>Moderate</td>
</tr>
<tr>
<td>Study ID</td>
<td>Authors</td>
<td>Country</td>
<td>Study Design</td>
<td>Setting</td>
<td>Sample Size</td>
<td>Number of Institutions</td>
<td>Prevalence</td>
<td>Gender</td>
<td>Mycosis</td>
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<td>8</td>
<td>Nakagami et al. 2014 [8]</td>
<td>Japan</td>
<td>Cross-sectional/ Prevalence</td>
<td>Long-term care</td>
<td>- Informed consent - Approval of the primary physician</td>
<td>1. Number of institutions: 3 N = 173 2. Mean age per facility: 85.0 (SD 9.7); 86.8 (SD 7.2); 87.5 (SD 7.1) years 4. Gender: 137/173 79.2% female</td>
<td>Prevalence of skin eruptions: Buttock: 124/171, 72.5% - Scale: 104/171, 60.8% - Erythema: 65/171, 38% - Maceration: 7/171, 4.1% - Erosion: 5/171, 2.9% Nail: 167/173, 96.5% - Discoloration: 100/173, 57.8% - Pachyonychia: 97/173, 56.1% - Hyperkeratosis: 76/173, 43.9% Interdigits: 156/173, 90.2% - Scale: 156/173, 90.2% Plantar: 125/173, 72.3% - Scale: 79/173, 45.7% - Hyperkeratosis: 59/173, 34.1% Onychomycosis: 2/5, 40%</td>
<td>-</td>
<td>Low</td>
</tr>
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<td>9</td>
<td>Nkondon Minkoumou et al. 2012 [9]</td>
<td>Cameroon</td>
<td>Cross-sectional/ Prevalence</td>
<td>Hospital</td>
<td>Not reported</td>
<td>1. Number of institutions: 2 N = 5 3. Age: ≥71 years, mean age: 77 4. Gender: 1/5, 20% female</td>
<td>-</td>
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</tr>
<tr>
<td>No.</td>
<td>Author et al.</td>
<td>Country</td>
<td>Study Design</td>
<td>Setting</td>
<td>Analysis</td>
<td>Notes</td>
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<td>12</td>
<td>Sadeghi et al. 2011 [12]</td>
<td>Iran</td>
<td>Cross-sectional/ Prevalence</td>
<td>Home care</td>
<td>Not reported</td>
<td>Dermatomycosis 70-79: Dermatophytes 40%, Candida spp. 20%, Mould 7%, Malessezia spp. 2.5% 80-89: Dermatophytes 29%, Candida spp. 20%, Mould 6%, Malessezia spp. 1% Results: estimated based on figure #1</td>
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<tr>
<td>13</td>
<td>Watanabe et al. 2010 [13]</td>
<td>Japan</td>
<td>Cross-sectional/ Prevalence</td>
<td>Medical practices</td>
<td>All cases who visited a dermatologist in the investigational period</td>
<td>Male 1999/2000: Fungal infection: 70 years: 54%; 80 years: 52%; 90 years: 50% Tinea pedis only: 70 years: 24%; 80 years: 19.5%; 90 years: 16% Tinea unguium only: 70 years: 7%; 80 years: 8.5%; 90 years: 10.5% Tinea pedis+ tinea unguium: 70 years: 26%; 80 years: 25%; 90 years: 29% Female 1999/2000: Results: estimated based on figure #4</td>
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</tbody>
</table>

2. N= not reported for 65+ years (total: 862,000)
3. Age groups: 65-74; ≥ 75 years
4. Gender: unclear

- Tinea capitis: 0.7%
- Tinea corporis: 3.8%
- Tinea cruris: 6.8%

≥ 75
- Tinea ungium: 11.9%
- Tinea pedis: 6.1%
- Tinea corporis: 1.5%
- Tinea cruris: 3.4%


Incidence tinea pedis + onychomycosis: 25.7%

Prevalence not calculable for 65+ years

High


Dermatomycosis 70-79: Dermatophytes 40%, Candida spp. 20%, Mould 7%, Malessezia spp. 2.5% 80-89: Dermatophytes 29%, Candida spp. 20%, Mould 6%, Malessezia spp. 1%

Results: estimated based on figure #1

Moderate


Male 1999/2000: Fungal infection: 70 years: 54%; 80 years: 52%; 90 years: 50% Tinea pedis only: 70 years: 24%; 80 years: 19.5%; 90 years: 16% Tinea unguium only: 70 years: 7%; 80 years: 8.5%; 90 years: 10.5% Tinea pedis+ tinea unguium: 70 years: 26%; 80 years: 25%; 90 years: 29%

Female 1999/2000:

Results: estimated based on figure #4

Moderate
|                                | Fungal infection: 70 years: 50%; 80 years: 49%; 90 years: 45% | Tinea pedis only: 70 years: 22%; 80 years: 19,5%; 90 years: 12% | Tinea unguium only: 70 years: 9%; 80 years: 8,5%; 90 years: 9,5% | Tinea pedis + tinea unguium: 70 years: 20%; 80 years: 20,5%; 90 years: 22,5% |
|                                | 1. Number of institutions: 361                              | Male 2006:                                                  |                                                                     |                                                                     |
|                                | 2. N = not reported for 65+ years                           | Fungal infection: 70 years: 63%; 80 years: 64%; 90 years: 58% |                                                                     |                                                                     |
|                                | (total: 7783)                                               | Tinea pedis only: 70 years: 23%; 80 years: 24%; 90 years: 18% |                                                                     |                                                                     |
|                                | 3. Age groups: 70-79, 80-89, >90 years                     | Tinea unguium only: 70 years: 11,5%; 80 years: 12%; 90 years: 14% |                                                                     |                                                                     |
|                                | 1. Gender: unclear                                         | Tinea pedis + tinea unguium: 70 years: 27%; 80 years: 28%; 90 years: 29,5% |                                                                     |                                                                     |
|                                |                                                               |                                                               | Female 2006:                                                    |                                                                     |
|                                |                                                               |                                                               | Fungal infection: 70 years: 51%; 80 years: 51,5%; 90 years: 60% |                                                                     |
|                                |                                                               |                                                               | Tinea pedis only: 70 years: 21%; 80 years: 22,5%; 90 years: 20% |                                                                     |
|                                |                                                               |                                                               | Tinea unguium only: 70 years: 12%; 80 years: 13%; 90 years: 13,5% |                                                                     |
|                                |                                                               |                                                               | Tinea pedis + tinea unguium: 70 years: 19%; 80 years: 17%; 90 years: 21,5% |
References Appendix H