Screening for Q Fever in Patients Undergoing Transcatheter Aortic Valve Implantation, Israel, June 2018–May 2020

Appendix

| Reference       | Study design, country                      | Study population                                                                 | Main results                                                                                                                                 |
|-----------------|--------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Kampschreur et al. (1) | Case report, the Netherlands               | Description of 3 patients with delayed diagnosis of Q fever IE until after valve surgery | 8 of 19 patients with Q fever IE who underwent surgical intervention and had a late diagnosis, either during or after surgery                  |
| Salamand et al. (2)  | Case series, 14 y, single institution, France | Description of 19 patients with Q fever IE who underwent surgical intervention   | 8 of 19 patients with Q fever IE who underwent surgical intervention and had a late diagnosis, either during or after surgery                  |
| Grisoli et al. (3)   | Cohort study, 14 y, single institution, France | All resected cardiac valves or prostheses underwent routine histologic examination, on a microbiologic and molecular biologic basis, in addition to serologic testing for fastidious microorganisms. | 14 (0.2%) of 6,401 examined valves were diagnosed with “unsuspected” Q fever IE.                                                               |
| Shapira et al. (4)    | Cohort study, 10 y, single center, Israel   | All excised valves were cultured and underwent histologic examination for the presence of inflammatory infiltrates, vegetations, and microorganisms. Patients with findings suggestive of inflammation underwent serologic investigation. | 1 of 8 patients with histologic endocarditis (of 857 examined valves) received a diagnosis of Q fever IE.                                    |
| Wiener et al. (5)     | Case series, 9 y, single center, Israel     | The clinical and serologic manifestations of 9 patients who received a diagnosis of Q fever IE were reviewed. | 3 out of 4 operated cases were diagnosed only following surgery                                                                               |
### Appendix Table 2. Q fever infective endocarditis definitions in the absence of tissue samples*

| Modified Duke criteria (6) | Dutch consensus guidelines (7) | French NRC definition (8) |
|----------------------------|-------------------------------|--------------------------|
| 1. Positive blood culture for *Coxiella burnetii* or anti-phase 1 IgG titer >1:800 | 1. IFA >1:800 or 1:1,024 for *C. burnetii* phase I IgG | 1. Positive culture or PCR of the blood or emboli or serologic tests with IgG phase I >6400 |
| 2. Echocardiographic findings of IE, such as vegetations, abscesses, etc.† | 2. Modified Duke criteria | 2. Echocardiographic findings of IE-vegetations, abscesses, etc. or PET scan displaying a specific valve fixation and mycotic aneurysm† |
| 3. Minor criteria: a) Predisposing heart disease; b) Fever >38°C§; c) Vascular phenomena¶; d) Immunologic phenomena# | 4. Valvulopathy including prosthetic valve not meeting the major criteria of the modified Duke criteria | 4. Minor criteria: a) Predisposing heart condition; b) Fever >38°C§; c) Vascular phenomena¶; d) Immunologic phenomena#; e) IgG1 antibody titers >800 and <6400 |

**Endocarditis definitions**

- **Definite IE:** 1+2 or 1+≥3 minor criteria; possible IE: 1+≥1 minor criteria
- **Proven IE:** 1+2 or 1+3; probable IE: 1+4
- **Definite IE:** 1+2 or 2+3 minor criteria including a+e; possible IE: 1+2 minor criteria or 2+2 minor criteria or 3 minor criteria**

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*FDG PET-CT, fluorodeoxyglucose positron emission tomography-computed tomography; IE, infective endocarditis; IFA, immunofluorescence assay; NRC, National Reference Center.
†Absent in >50% of cases (9).
‡Positive in 13%–20% of cases (10–12).
§Absent in 20%–40% of cases (9,13).
¶Exist in less than 20% of cases (13). Vascular phenomena include major arterial emboli, septic pulmonary infarcts, mycotic aneurysm, Intracranial hemorrhage, conjunctival hemorrhages, and Janeway lesions.
#Exist in less than 20% of cases (13). Immunologic phenomena include glomerulonephritis, Osler’s nodes, Roth spots, or rheumatoid factor.
**Including 1 microbiologic characteristic and a cardiac predisposition.

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