**Box 2**

## Interpretation of key serology and synovial fluid results

The serology findings and the simultaneous detection of B. garinii DNA in the synovial fluid suggests the following interpretation:

- The p100 antibodies as a late infection marker indicate that an infection took place at least several weeks (or months) before the first visit.
- The rising IgG antibody band and – in particular – the specific p18 antibodies against *B. garinii* detected by Luminex technology reflect immune reactions in the context of Lyme arthritis caused by *B. garinii*.
- The p18 antibodies against *B. afzelii* might be interpreted as an immune reaction caused by a previous infection with *B. afzelii* or as a slight cross-reactivity.