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Healthcare workers' perspective on post-infectious care: insights from Delphi studies on Post-COVID Syndrome and Q-fever

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Background

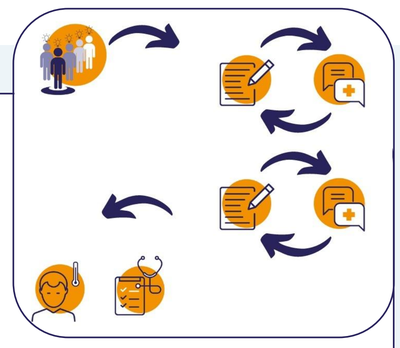
Post-acute infection syndromes (PAIS) such as Post-COVID Syndrome (PCS, Long COVID) and Q-fever fatigue syndrome (QFS) lead to long-term multi-system symptoms and large societal impact.

For both conditions healthcare organizations were unprepared for the large number of patients after major outbreaks (COVID-19 pandemic; Dutch Q-fever epidemic 2007–2010) and continue to be challenged regarding long-term care.

Aim:

Synthesize and compare findings from two two-round Delphi studies among Dutch healthcare workers (HCWs) to identify shared prerequisites, barriers and opportunities for improving care for PCS and Q-fever.

Methods



- Delphi methodology: aim consensus by structured, iterative process with anonymized feedback by experts.
- Two online, two-round Delphi studies among Dutch HCWs; Q-fever (2019, initial N=94; N=81 in round 2); PCS (2023–2024, initial N=270; N=169 in round 2).
- Questionnaires based on literature, healthcare use data, and stakeholder meetings.
- Topics: prerequisites for high-quality care, barriers/facilitators, key professionals, multidisciplinary collaboration, knowledge needs.
- Responses were analyzed with descriptive statistics and ranking to assess consensus and priorities.

Results

Shared themes

marginal consensus in prioritization among participating HWCs

Q-fever

Recognition by HCWs listed among top prerequisites; many **patients felt not heard.**

Knowledge gaps major barrier; **medical education** prioritized.

No standardized post-infection care after outbreak; need for **clear roles and guidance.**

Recognition

Knowledge & Research

Organization of care

Post-COVID

Lack of understanding/recognition identified as urgent barrier despite emergence of expert centers.

Knowledge dissemination and up-to-date research prioritized to improve care; **evidence-based treatments** lacking.

Emergence of expert centers is promising development, but organizational/coordination **gaps remain.**

Collaboration & roles

Both studies indicate care should involve **multiple disciplines** (median ~7–8 providers for complex cases) and clearer role definitions/case management. General practitioners play a key role, but experience professional helplessness.

Practical barriers

Organizational **workload, time pressure and financial barriers** hinder implementation of improvements — HCWs see these as hard to solve.

Conclusion – take home messages

Remarkable similarities in prerequisites and barriers in Q-fever and PCS care.

However, **little consensus** regarding prioritized ways to improve care.

Joint responsibility required: HCWs, research institutions, health services and policymakers must act together to build knowledge, fund services, and standardize multidisciplinary care pathways.

Despite differences in pathogens and timelines, organizational and knowledge gaps persist—showing systemic **challenges in PAIS care**.

References: Brus IM. BMC Health Serv. Res. 2023;23:319; Heemskerk SCM. C-support / Erasmus MC report. March 2025; Heemskerk SCM. (submitted).
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Report Delphi study PCS (in Dutch):