



# Synovitis in Haemophilia: A Factor Think Tank Podcast Series

Episode 4. Monitoring and follow-up  
Slide summary

# Disclaimer

- The Factor Think Tank is an educational activity funded by Sobi. Synovitis in Haemophilia: A Factor Think Tank Podcast Series was developed by the Factor Think Tank working group and the accompanying slide deck is only intended for healthcare professionals
- Slides 6–10 summarise content from the e-Delphi consensus article by Mancuso et al.;<sup>1</sup> wording closely resembles that of the article to reflect the e-Delphi consensus discussions
- All views and opinions expressed in the podcast are those of the participants only
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# Synovitis in Haemophilia: A Factor Think Tank Podcast Series (1)

- Findings from the e-Delphi consensus study on synovitis and joint health in haemophilia have been published in [Haemophilia](#) and provide the basis for the podcast series

HAEMOPHILIA

Synovitis and joint health in patients with haemophilia:  
Statements from a European e-Delphi consensus study

*Maria Elisa Mancuso, Katharina Holstein, James S. O'Donnell,  
Sébastien Lobet, Robert Klamroth, the FVIII Think Tank Study Group*

# Synovitis in Haemophilia: A Factor Think Tank Podcast Series (2)

- The e-Delphi consensus examined five key domains relevant to synovitis in haemophilia:
  - Definition and pathophysiology
  - Diagnosis
  - Impact on joint health
  - Monitoring and follow-up
  - Prevention and treatment
- Based on these key domains an educational [series of five podcasts](#), featuring lead author Dr Maria Elisa Mancuso and co-authors or expert guest speakers, is available to healthcare professionals

This slide deck provides supporting information for **Episode 4. Monitoring and follow-up** of the podcast series on synovitis in haemophilia



# An overview of synovitis in haemophilia

- Synovitis is defined as inflammation of synovial tissue within the joint<sup>1</sup>
- It is common in patients with haemophilia in response to blood within joints and is the first step towards the development of chronic arthropathy<sup>1</sup>
- One bleeding episode can initiate synovial inflammation, which may develop into chronic synovitis if bleeds recur frequently and are not adequately prevented<sup>2</sup>
- Synovitis is highly relevant to joint health in haemophilia; however, knowledge gaps exist regarding definition, pathophysiology, diagnosis, prevention, follow-up and treatment<sup>3</sup>
- Delphi methodology, which is often used to produce best-practice guidelines where evidence is missing, was employed to conduct a European e-Delphi consensus study on synovitis in haemophilia<sup>3</sup>

1. van Vulpen L, et al. Haemophilia. 2021;27(Suppl. 3):96–102; 2. van Vulpen L, et al. Osteoarthritis Cartilage. 2015;23:63–9;  
3. Mancuso M, et al. Haemophilia. 2023;29:619–28

# e-Delphi consensus article

Domain: Follow-up of synovitis (statements 12–16)

# Monitoring and follow-up of synovitis in haemophilia e-Delphi consensus statements 12–16: Background

- POC-MSKUS is a simple, non-invasive tool for monitoring the course of synovitis over time during regular clinical assessment<sup>1–4</sup>
- However, there is no unique schedule suitable for all patients; frequency of ultrasound assessment depends on several variables impacting the relative risk of synovitis<sup>5</sup>
  - Age
  - Pre-existing synovitis
  - Type and intensity of physical activity

POC-MSKUS, point-of-care musculoskeletal ultrasound

1. Bakeer N, et al. F1000Res. 2019;8:F1000 Faculty Rev-1029; 2. Aznar J, et al. Haemophilia. 2011;17:826–8; 3. Kidder W, et al. Haemophilia. 2011;17:826–8; 4. Klukowska A, et al. Haemophilia. 2001;7:286–92; 5. Mancuso M, et al. Haemophilia. 2023;29:619–28

# Monitoring and follow-up of synovitis in haemophilia e-Delphi consensus statements 12–16: Background

- It is generally agreed that patients with synovitis should be assessed more regularly than those without<sup>1</sup>
  - For individuals in whom asymptomatic synovitis is detected for the first time, MSKUS re-assessment within 6 months is important to determine the potential for reversibility
  - For individuals with chronic synovitis and no cartilage/bone damage, MSKUS assessment every 4–6 months may help define the best follow-up protocol
- POC-MSKUS is a sensitive tool for the detection of synovitis;<sup>2,3</sup> therefore, confirmatory MRI is not needed<sup>1</sup>
- MRI may be useful to provide a deeper analysis of joint structures beyond the presence of synovitis<sup>4</sup>

MRI, magnetic resonance imaging; MSKUS, musculoskeletal ultrasound; POC-MSKUS, point-of-care musculoskeletal ultrasound

1. Mancuso M, et al. Haemophilia. 2023;29:619–28; 2. De la Corte-Rodriguez H, et al. Haemophilia. 2022;28:138–44;

3. De la Corte-Rodriguez H, et al. Expert Rev Hematol. 2018;11:253–61; 4. Doria A, et al. Haemophilia. 2010;16(Suppl. 5):107–14



# Monitoring and follow-up of synovitis in haemophilia e-Delphi consensus statements 12–16

**12** Patients with synovitis need more frequent musculoskeletal assessment than patients without synovitis

**13** The frequency of POC-MSKUS assessment of index joints to detect synovitis varies taking into account age, pre-existing synovitis/joint damage and physical activity

**14** In the presence of chronic synovitis and no/limited joint damage POC-MSKUS assessment must be repeated every 4–6 months

**15.1** Following detection of synovitis by POC-MSKUS, MRI provides additional diagnostic information\*

\*Amended from 'At first detection of synovitis by POC-MSKUS, MRI is recommended' following a second e-Delphi round  
MRI, magnetic resonance imaging; POC-MSKUS, point-of-care musculoskeletal ultrasound  
Mancuso M, et al. Haemophilia. 2023;29:619–28

# Monitoring and follow-up of synovitis in haemophilia e-Delphi consensus statements 12–16

16

**At first detection of synovitis in asymptomatic joints, re-assessment by POC-MSKUS is needed within 6 months**

# Podcast discussion points

Synovitis in Haemophilia: A Factor Think Tank Podcast Series  
Episode 4. Monitoring and follow-up

# Episode 4. Monitoring and follow-up

- This episode focuses on four topics relevant to the monitoring and follow-up of synovitis in haemophilia:
  - Rationale for monitoring synovitis in patients with haemophilia
  - Frequency of assessment
  - Tools available
  - When to use MRI vs POC-MSKUS
- Host Dr Maria Elisa Mancuso leads the discussion with Factor Think Tank member Dr Katharina Holstein



Dr Maria Elisa Mancuso is Senior Haematology Consultant at the Center for Thrombosis and Hemorrhagic Diseases of IRCCS Humanitas Research Hospital in Rozzano, Milan, Italy



Dr Katharina Holstein, Senior Medical Doctor at the Haemophilia and Coagulation Centre Hamburg-Eppendorf, Germany

MRI, magnetic resonance imaging; POC-MSKUS, point-of-care musculoskeletal ultrasound  
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# Topic 1. Rationale for monitoring synovitis in patients with haemophilia

- Identifying early signs of joint health deterioration is important because synovitis plays a major role in the pathophysiology of haemophilic arthropathy
- Early detection of synovitis, even in asymptomatic joints, enables treatment modification, for example:
  - Intensification of haemophilia therapy
  - Initiation of specific synovitis treatment
- The aim of early detection is to prevent further joint damage and maintain quality of life
- Synovitis can have a big impact on patients' quality of life, causing physical problems due to haemophilic arthropathy and chronic pain

**“Haemophilic arthropathy and chronic pain – this is what bothers our patients”**

## Topic 2. Frequency of assessment

- There is no one-size-fits-all assessment schedule for monitoring synovitis
- Certain risk factors should influence the frequency of assessment, including age, physical activity, bleeding history, pre-existing synovitis and joint disease
  - For example, regular monitoring would be beneficial for a very active young patient with no obvious joint disease who would have a good outcome if synovitis was detected early
- Patients with synovitis need to be assessed more frequently than those without. Per the e-Delphi consensus statements, POC-MSKUS should be performed:
  - Every 4–6 months for chronic synovitis with no/limited joint damage
  - Within 6 months after first detection of synovitis in asymptomatic joints

**“A very active young patient with no obvious joint disease...would have a very good outcome if detected early”**

POC-MSKUS, point-of-care musculoskeletal ultrasound

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## Topic 3. Tools available

- The first step is to take a medical history, ask about symptoms and perform a physical examination
- The preferred approach is to perform POC-MSKUS and MRI
- POC-MSKUS schedules are available for chronic synovitis that are easy to perform, affordable and not burdensome for patients

**“The better and more sensitive way to monitor synovitis is to perform POC-MSKUS and MRI”**

MRI, magnetic resonance imaging; POC-MSKUS, point-of-care musculoskeletal ultrasound

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## Topic 4. When to use MRI vs POC-MSKUS

- MRI is slightly better than POC-MSKUS for the detection, quantification and monitoring of synovitis
- However, MRI is a lot more expensive and burdensome; it is difficult to perform on small children, in whom early monitoring is key to ensure protection from synovitis
- MRI is helpful to provide additional information on joint structure in certain situations; for example, it can exclude large subchondral cysts prior to radiosynoviorthesis
- POC-MSKUS can be sufficient to detect, quantify and monitor synovitis, but training is required to perform it and it needs to be established at the treatment centre

**“[MRI] is a lot more expensive, a lot more burdensome and its quite difficult on small children”**

MRI, magnetic resonance imaging; POC-MSKUS, point-of-care musculoskeletal ultrasound  
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# Conclusions

- It is important to regularly monitor patients with haemophilia for the presence of synovitis to identify the early signs of joint health deterioration and implement treatment strategies aimed at preventing further joint damage
- This can be done frequently (every 4–6 months) with POC-MSKUS; MRI can be used to better define some aspects

# Listen to the whole series

Synovitis in Haemophilia: A Factor Think Tank Podcast Series

## More in the series

- If you enjoyed this podcast and want to find out more about the Factor Think Tank, please visit the website: [www.factorthinktank.com](http://www.factorthinktank.com)
- All episodes in the series can be found here:
  - Episode 1. Definition and pathophysiology (Dr Maria Elisa Mancuso and Dr Robert Klamroth)
  - Episode 2. Diagnosis (Dr Maria Elisa Mancuso and Prof Dario Di Minno)
  - Episode 3. Impact on joint health (Dr Maria Elisa Mancuso and Dr Sébastien Lobet)
  - Episode 4. Monitoring and follow-up (Dr Maria Elisa Mancuso and Dr Katharina Holstein)
  - Episode 5. Prevention and treatment (Dr Maria Elisa Mancuso and Dr Gianluigi Pasta)