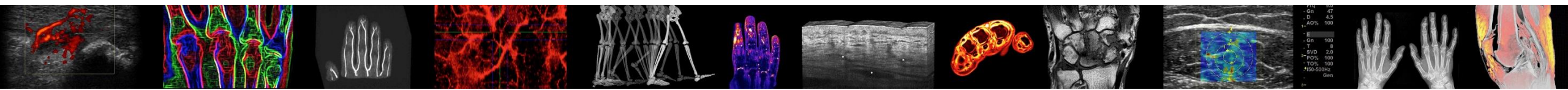
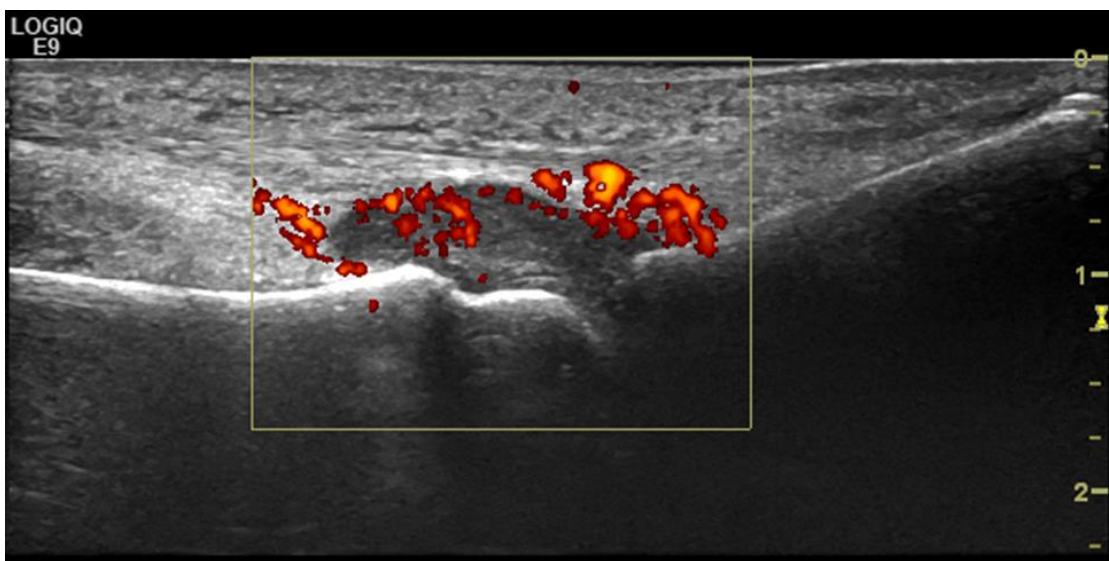
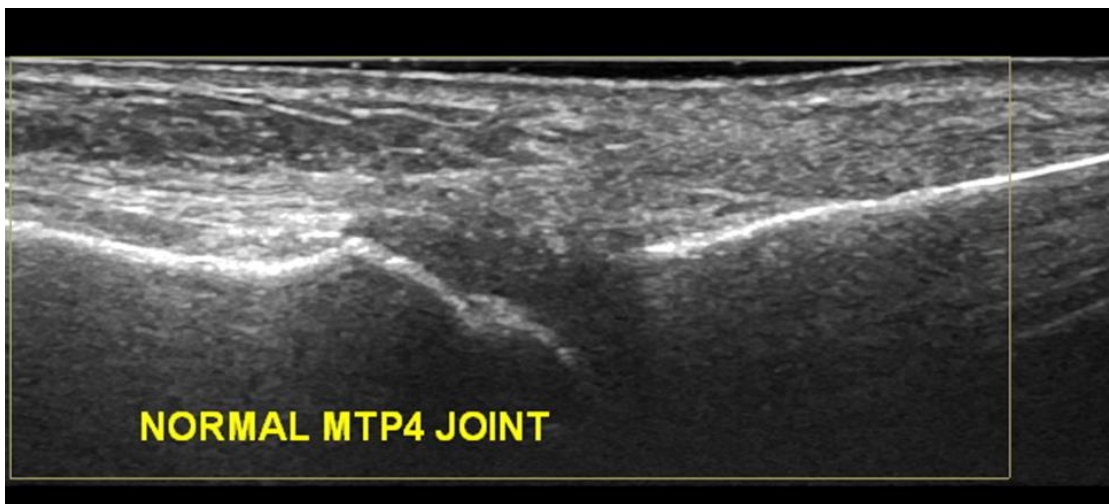




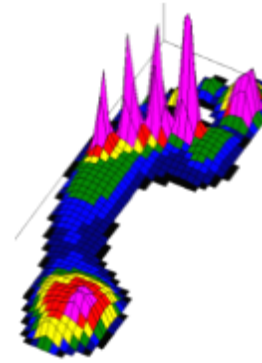
# 'Walking on pebbles' sensation



# Callus debridement in RA

Clin Rheumatol  
DOI 10.1007/s10067-012-2134-x

ORIGINAL ARTICLE



Rheumatology 2000;39:652-654

## Preliminary investigation of debridement of plantar callosities in rheumatoid arthritis

J. Woodburn, Z. Stableford<sup>1</sup> and P. S. Helliwell

Rheumatology and Rehabilitation Research Unit, University of Leeds, 36 Clarendon Road, Leeds LS2 9NZ and <sup>1</sup>Department of Podiatry, St Mary's Hospital, Greenhill Road, Leeds LS12 3QE, UK

Rheumatology 2005;44:207-210

Advance Access publication 12 October 2004

doi:10.1093/

## Debridement of plantar callosities in rheumatoid arthritis: a randomized controlled trial

H. J. Davys, D. E. Turner<sup>1</sup>, P. S. Helliwell<sup>1</sup>, P. G. Conaghan<sup>1</sup>, P. Emery<sup>1</sup> and J. Woodburn<sup>1</sup>

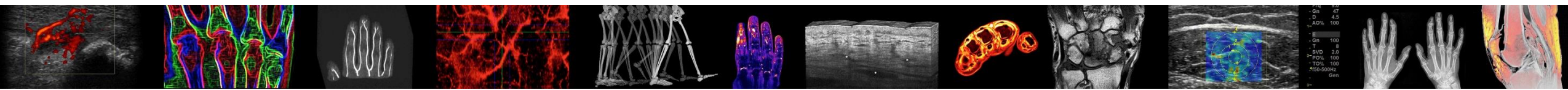
## Debridement of painful forefoot plantar callosities in rheumatoid arthritis: the CARROT randomised controlled trial

Heidi J. Siddle • Anthony C. Redmond • Robin Waxman •  
Abigail R. Dagg • Begonya Alcaacer-Pitarch •  
Richard A. Wilkins • Philip S. Helliwell

Under controlled conditions, **the long term effects** of sharp scalpel debridement of painful forefoot plantar callosities in patients with RA when used in conjunction with a combined therapeutic approach produced **no additional benefit over the use of a combined therapeutic approach alone**

## Rheumatoid arthritis in adults: management

NICE guideline [NG100] Published date: July 2018



# Plantar plate pathology in RA

- **Distribution of plantar plate pathology at the lesser MTP joints in RA differs from that seen in otherwise healthy subjects**
  - *5<sup>th</sup> MTP joint in RA as opposed to 2<sup>nd</sup> MTP in normal subjects*
- **Plantar plate pathology is associated with features of disease severity**
  - *Patients with synovitis, bone erosion and oedema are more likely to have PPP at 4<sup>th</sup> & 5<sup>th</sup> MTP joints*
- **Longer disease duration (> 12 months), Larsen score >1 and higher peak plantar pressure (>485 kPa) were independently associated with the increased odds of developing or deteriorating plantar plate pathology**
- **Erosions were more commonly seen on the plantar aspect of the metatarsal head in RA, supporting the hypothesis of a relationship between biomechanical demands and bone changes in the forefoot**

Clin Rheumatol (2012) 31:621–629  
DOI 10.1007/s10067-011-1899-7

ORIGINAL ARTICLE

## MRI identifies plantar plate pathology in the forefoot of patients with rheumatoid arthritis

Heidi J. Siddle · Richard J. Hodgson · Anthony C. Redmond · Andrew J. Grainger · Richard J. Wakefield · David A. Pickles · Elizabeth M. A. Hensor · Philip S. Helliwell

## Magnetic Resonance Arthrography of Lesser Metatarsophalangeal Joints in Patients with Rheumatoid Arthritis: Relationship to Clinical, Biomechanical, and Radiographic Variables

HEIDI J. SIDDLER, RICHARD J. HODGSON, PHILIP O'CONNOR, ANDREW J. GRAINGER, ANTHONY C. REDMOND, RICHARD J. WAKEFIELD, ELIZABETH M.A. HENSOR, and PHILIP S. HELLIWELL

Siddle et al. BMC Musculoskeletal Disorders (2017) 18:308  
DOI 10.1186/s12891-017-1668-0

BMC Musculoskeletal Disorders

RESEARCH ARTICLE

Open Access



Plantar plate pathology is associated with erosive disease in the painful forefoot of patients with rheumatoid arthritis

Heidi J Siddle<sup>1,2\*</sup>, Richard J Hodgson<sup>1</sup>, Elizabeth M A Hensor<sup>1,2</sup>, Andrew J Grainger<sup>2,4</sup>, Anthony C Redmond<sup>1,2</sup>, Richard J Wakefield<sup>1,2</sup> and Philip S Helliwell<sup>1</sup>

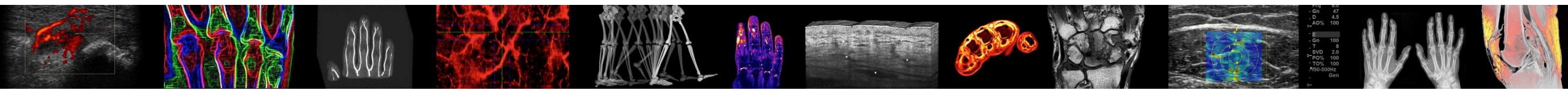
RHEUMATOLOGY

Rheumatology 2014;53:932–936  
doi:10.1093/rheumatology/keu478  
Advance Access publication 29 January 2014

Concise report

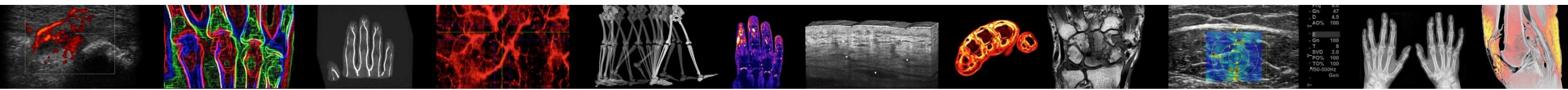
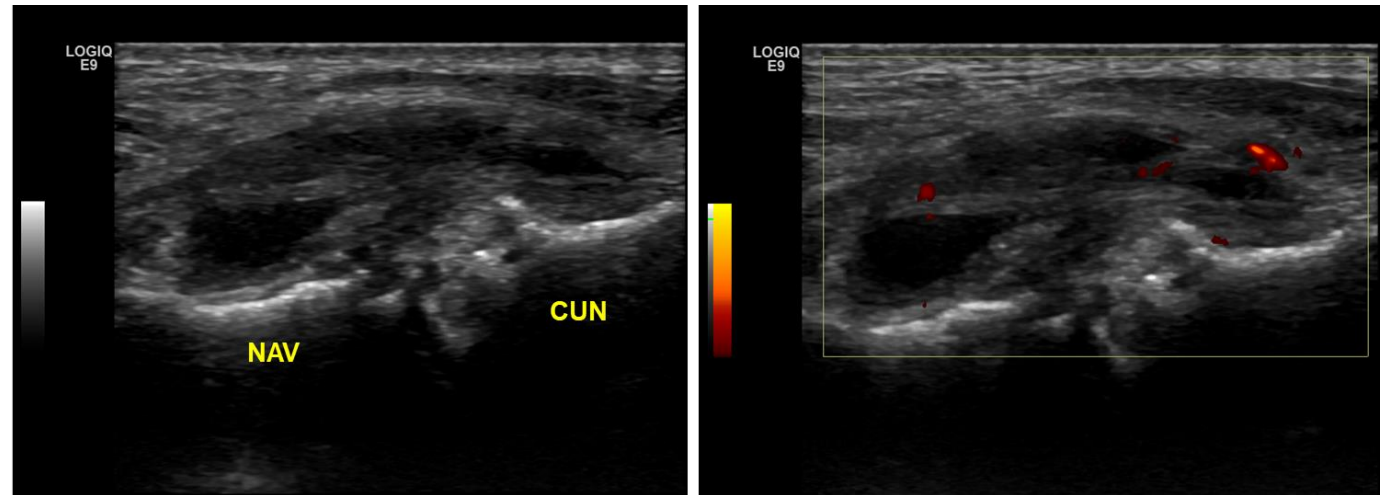
**Anatomical location of erosions at the metatarsophalangeal joints in patients with rheumatoid arthritis**

Heidi J. Siddle<sup>1</sup>, Elizabeth M. A. Hensor<sup>1,2</sup>, Richard J. Hodgson<sup>2</sup>, Andrew J. Grainger<sup>2,3</sup>, Anthony C. Redmond<sup>1,2</sup>, Richard J. Wakefield<sup>1,2</sup> and Philip S. Helliwell<sup>1</sup>



# Inflammatory versus mechanical disease?

- Is it inflammatory or mechanical?
  - Is it inflammatory related to the systemic disease?
  - Is it inflammatory that is mechanically derived?
- 
- How can we differentiate?
    - Clinically?
    - Ultrasound?



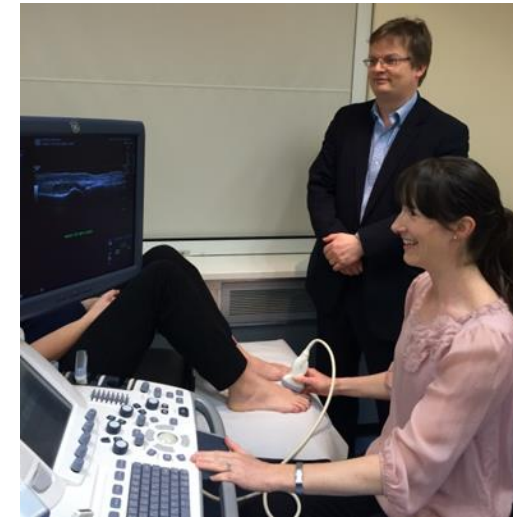
# Ultrasound Imaging in Rheumatology

The EULAR points to consider for health professionals undertaking musculoskeletal ultrasound for rheumatic and musculoskeletal diseases **FREE**

Heidi J Siddle<sup>1, 2</sup>, Peter Mandl<sup>3</sup>, Daniel Aletaha<sup>3</sup>, Thea P Vliet Vlieland<sup>4</sup>, Marina Backhaus<sup>5</sup>, Patricia Cornell<sup>6</sup>, Maria-Antonietta D'Agostino<sup>1, 7</sup>, Karen Ellegaard<sup>8</sup>, Annamaria Iagnocco<sup>9</sup>, Bente Jakobsen<sup>10</sup>, Tiina Jasinski<sup>11</sup>, Nina H Kildal<sup>12</sup>, Michaela Lehner<sup>3</sup>, Ingrid Möller<sup>13</sup>, Gabriela M Supp<sup>3</sup>, Phillip O'Connor<sup>2, 14</sup>, Anthony C Redmond<sup>1, 2</sup>, Esperanza Naredo<sup>15</sup>, Richard J Wakefield<sup>1, 2</sup>

Author affiliations

<http://dx.doi.org/10.1136/annrheumdis-2016-210741>



## The 2017 EULAR standardised procedures for ultrasound imaging in rheumatology

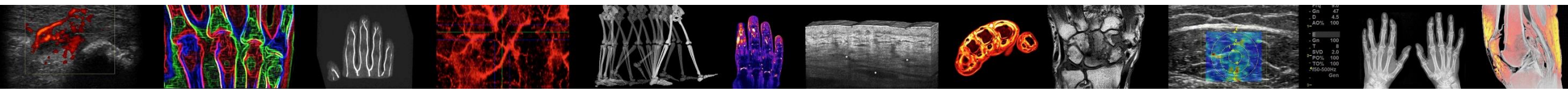
Ingrid Möller,<sup>1,2</sup> Iustina Janta,<sup>3</sup> Marina Backhaus,<sup>4</sup> Sarah Ohrndorf,<sup>5</sup> David A Bong,<sup>1,2</sup> Carlo Martinoli,<sup>6</sup> Emilio Filippucci,<sup>7</sup> Luca Maria Sconfienza,<sup>8,9</sup> Lene Terslev,<sup>10</sup> Nemanja Damjanov,<sup>11</sup> Hilde Berner Hammer,<sup>12</sup> Iwona Sudol-Szopinska,<sup>13,14</sup> Walter Grassi,<sup>7</sup> Peter Balint,<sup>15</sup> George A W Bruyn,<sup>16</sup> Maria Antonietta D'Agostino,<sup>17,18</sup> Diana Hollander,<sup>19</sup> Heidi J Siddle,<sup>20</sup> Gabriela Supp,<sup>21</sup> Wolfgang A Schmidt,<sup>22</sup> Annamaria Iagnocco,<sup>23</sup> Juhani Koski,<sup>24</sup> David Kane,<sup>25</sup> Daniela Fodor,<sup>26</sup> Alessandra Bruns,<sup>27</sup> Peter Mandl,<sup>28</sup> Gurjit S Kaeley,<sup>29</sup> Mihaela Micu,<sup>30</sup> Carmen Ho,<sup>31</sup> Violeta Vlad,<sup>32</sup> Mario Chávez-López,<sup>33</sup> Georgios Filippou,<sup>34</sup> Carmen Elena Cerón,<sup>35</sup> Rodina Nestorova,<sup>36</sup> Maritza Quintero,<sup>37</sup> Richard Wakefield,<sup>20</sup> Loreto Carmona,<sup>38</sup> Esperanza Naredo<sup>39</sup>

• EULAR Ultrasound Competencies for Health Professionals

• EULAR Standardised Procedures for Ultrasound

• OMERACT Foot and ankle Ultrasound Scoring System in RA (FUSS-RA)

• Royal College of Podiatry Ultrasound in Podiatry Specialist Advisory Group



The HCPC states 'we recognise the valuable role professional bodies play in representing and promoting interests of their members. This often includes **providing guidance and advice about good practice**, which can help meet the HCPC standards.'



Mr Jai Saxelby



Dr Lisa Wright




Mr Lawrence Ambrose

www.rcpod.org.uk

ROYAL COLLEGE  
of PODIATRY

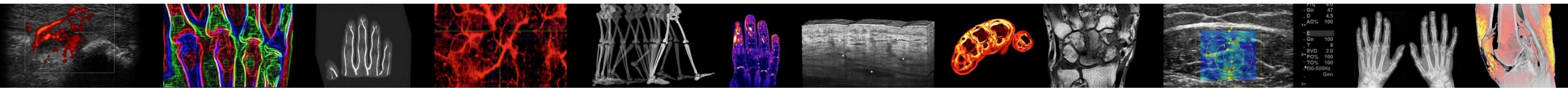

Principles for podiatrists using  
ultrasound imaging  
(USI)/point of care ultrasound  
(POCUS)



www.rcpod.org.uk

ROYAL COLLEGE  
of PODIATRY

Practice guidance for  
podiatrists when using  
ultrasound imaging (USI) as  
part of their scope of practice



# Foot and Ankle Working Group Fellow: Lara Chapman

Co-Chairs: Heidi Siddle, Philip Helliwell, Marian Hannan, Hylton Menz

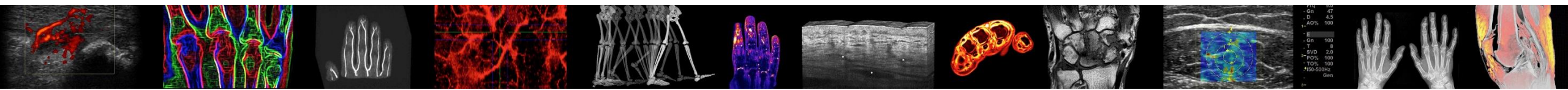


**Absence of a standardised core outcome set (COS) to be measured and reported, as a minimum, in all studies of foot and ankle disorders in rheumatology**

To influence policy and practice, then the selection of study outcomes needs to be **important and relevant to all key stakeholders**, including patients and the public, and clinicians

Not another outcome measurement tool!

Measure the same things and measure them properly...





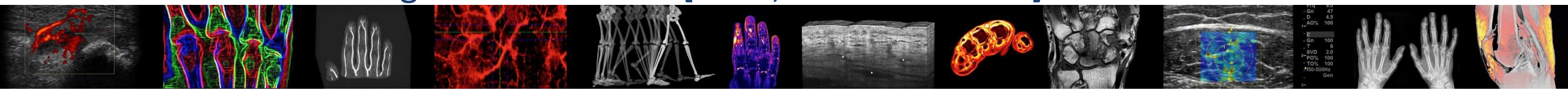
## Rheumatoid arthritis in adults: management

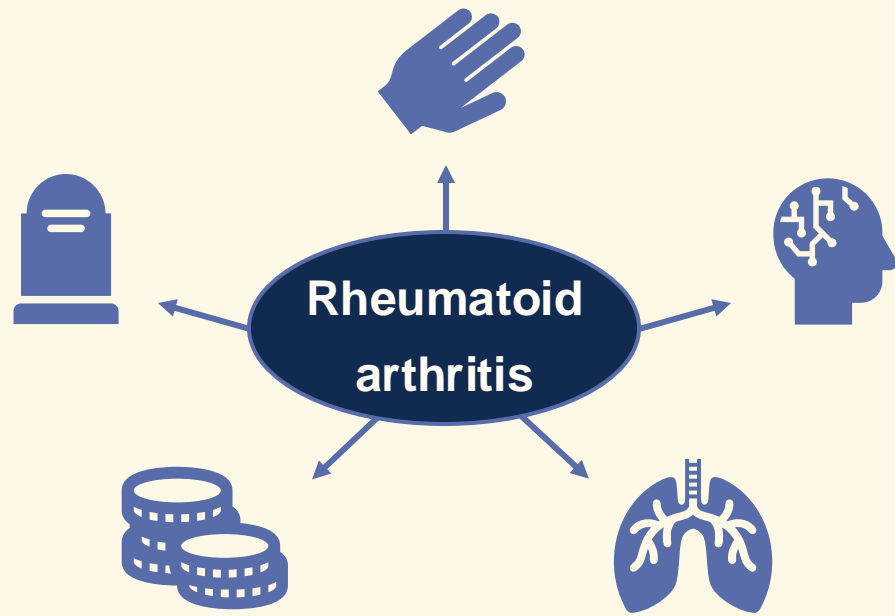
NICE guideline [NG100] Published: 11 July 2018 Last updated: 12 October 2020

### 1.1 Referral, diagnosis and investigations

#### Referral from primary care

- 1.1.1 Refer for specialist opinion any adult with suspected persistent synovitis of undetermined cause. Refer urgently (even with a normal acute-phase response, negative anti-cyclic citrullinated peptide [CCP] antibodies or rheumatoid factor) if any of the following apply:
  - the small joints of the hands or feet are affected
  - more than one joint is affected
  - there has been a delay of 3 months or longer between onset of symptoms and seeking medical advice. [2009, amended 2018]





'**Prompt diagnosis** of rheumatoid arthritis (RA), the most common form of inflammatory arthritis, is crucial to **optimise long-term patient outcomes** through prevention of joint damage and disability.'

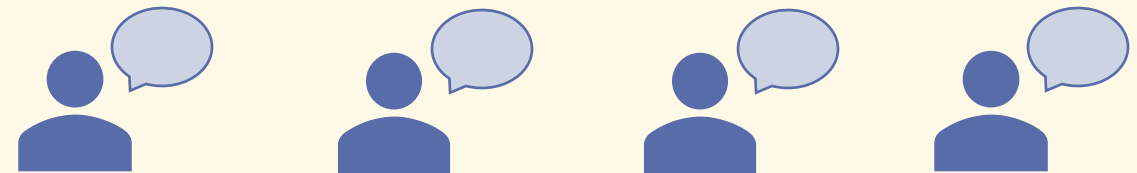
Siddle et al. (2023)



## 27-week delay

between symptom onset and seeing a rheumatologist

Stack et al. (2019)



GP visit 1 → GP visit 2 → GP visit 3 → GP visit 4

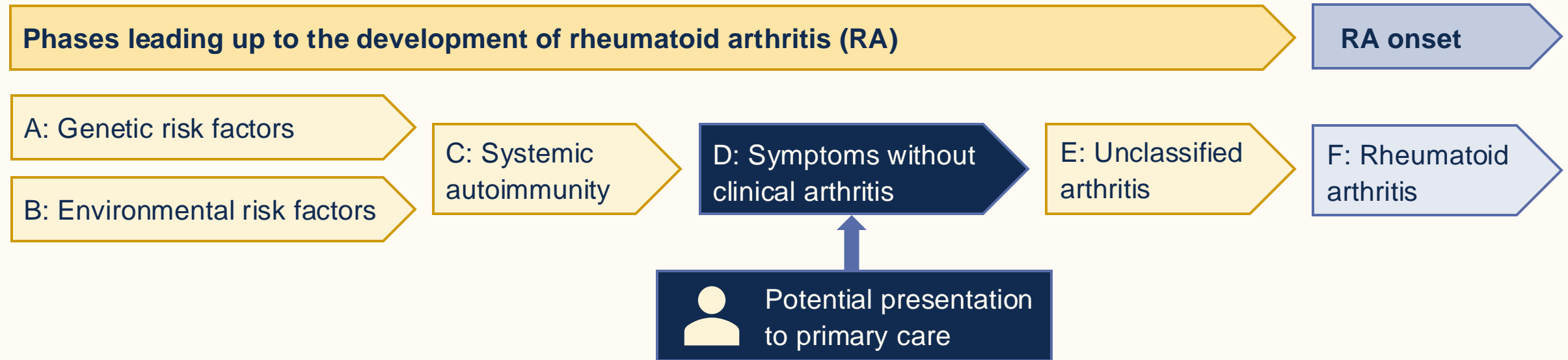
Rheumatology referral



Stack et al. (2019)

# Identifying rheumatoid arthritis early

European League Against Rheumatism terminology recommendation (Gerlag et al. 2012)



## Anti-cyclic citrullinated peptide (anti-CCP) test properties

- ~ **3%** of patients presenting to primary care with new onset MSK symptoms test positive for anti-CCP (Nam et al. 2016).
- ~ **1 in 3** patients who test positive for anti-CCP develop RA within a year (Nam et al. 2016, Garcia-Montoya 2022, Duquenne et al. 2023).

# Refining the primary care CCP+ve patient pathway

Leticia Garcia-Montoya, Jackie Nam, Kulveer Mankia, Laurence Duquenne, Andrea Di Matteo, Peta Pentony, Paul Emery

Anti-CCP antibody testing has been developed and is more specific for identifying patients in the pre-clinical phase of inflammatory arthritis



**Negative predictive value 85.4%**  
for the development of IA (p=0.001)



↓ CCP titre



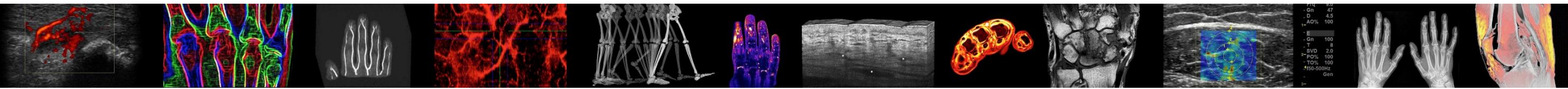
**Negative predictive value 95.8%**  
for the development of IA (p=0.001)



↑ CCP titre



**Positive predictive value 69.1%**  
for the development of IA (p<0.001)



Career Development Award

Active Award


Award ID: ICA-SCL-2018-04-ST2-004

Shortlist: 

## Improving iDentification of inflammatory Arthritis (IDEAS) in Primary Care: a multi-disciplinary team approach


### Plain English Summary:

Can we identify people who have rheumatoid arthritis before they get inflammation that damages their joints? Rheumatoid arthritis (RA) is caused by inflammation (swelling) in the joints, generally affecting multiple joints, whereas osteoarthritis normally affects individual joints wh...

[Read more](#) 

### Abstract:

This research aims to address the clinical research question: Can we identify people in the pre-clinical phase of inflammatory arthritis (IA) earlier in primary care? A phase of imminent IA has been demonstrated to precede rheumatoid arthritis (RA) onset. Secondary care mod...

[Read more](#) 

Lead Investigator(s):

[Dr Heidi Siddle](#) 

Start Date:

April 2019

### Workstream 1

Prediction model development

### Workstream 2

Economic modelling

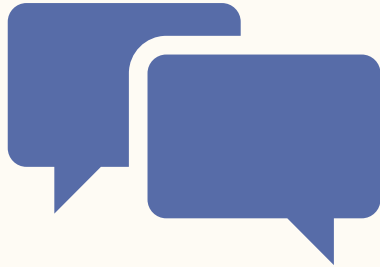
### Workstream 3

Intervention development



To develop a new complex intervention, the IDEAS-PC model, to support clinicians to identify people at risk of rheumatoid arthritis in primary care by targeted use of anti-CCP testing.

# Phase 1 overview

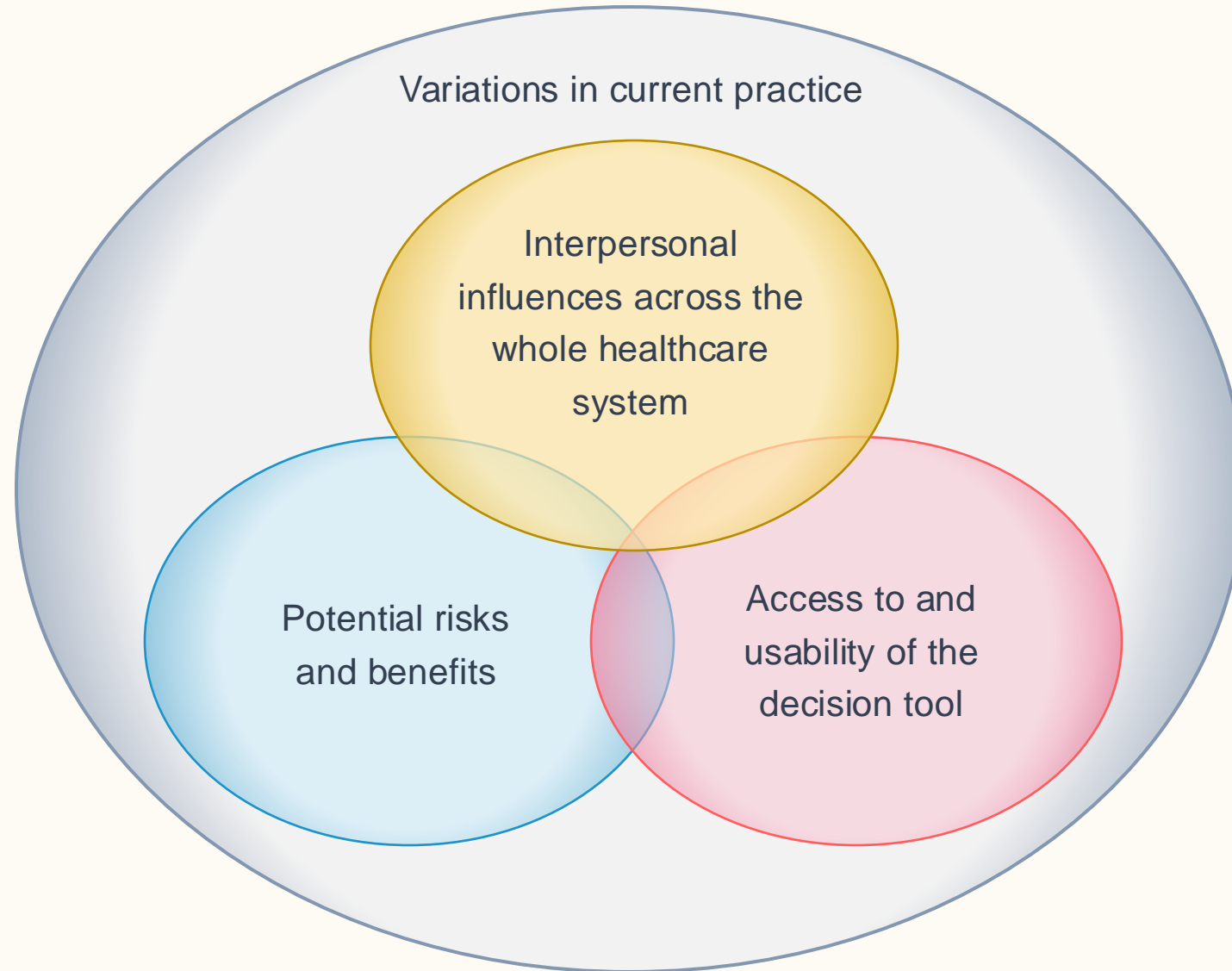


## 8 GPs and 8 MSK First Contact Practitioners (FCPs)

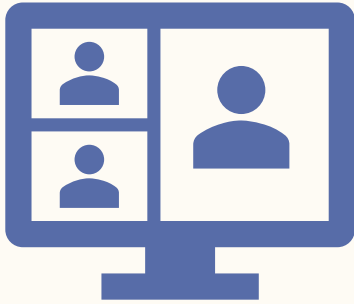
Interviews to explore current RA diagnostic pathways and the behaviours required to put the IDEAS-PC prediction model into practice

Predictor variables	Score
Joint pain back	-3
Joint pain neck	-2
Joint pain knee	-1
Joint pain wrist	4
Sex (male)	3
First degree relative with RA	3
Joint pain foot / toes	3
Joint pain hand / fingers	3
Joint pain shoulder	3
Smoking history (ever)	2
Joint pain thumb	1
<b>Total Score</b>	

# Phase 1 themes



# Phase 2 overview



## 3 GPs and 5 MSK FCPs

Two workshops to refine and prioritise the list of candidate components from Phase 1

Priority	Candidate components	
Must have	Decision tool	Key design considerations
	Guidance on using the decision tool and associated actions	
Should have	Evidence supporting use of the decision tool	Key design considerations
	Patient education resources	
Could have	Information covering key points about the decision tool	
	Video of and/or quotes from MDT professionals supporting use of the decision tool and associated actions	
	Reminders about using the decision tool	
	Summary information about the decision tool for sharing via appropriate routes	
	Clinical audit tool for the decision tool	



# Welcome to the COuld it Be RA? (COBRA) tool

The COBRA tool is for primary care clinicians to use with patients with **new-onset** musculoskeletal (MSK) symptoms **without synovitis**.

The COBRA tool was funded through Professor Heidi Siddle's HEE/NIHR Senior Clinical Lectureship award (reference: **ICA-SCL-2018-04-ST2-004**). The views expressed in this website are those of the author(s) and not necessarily those of the NIHR, NHS, or the Department of Health and Social Care.

FUNDED BY

NIHR

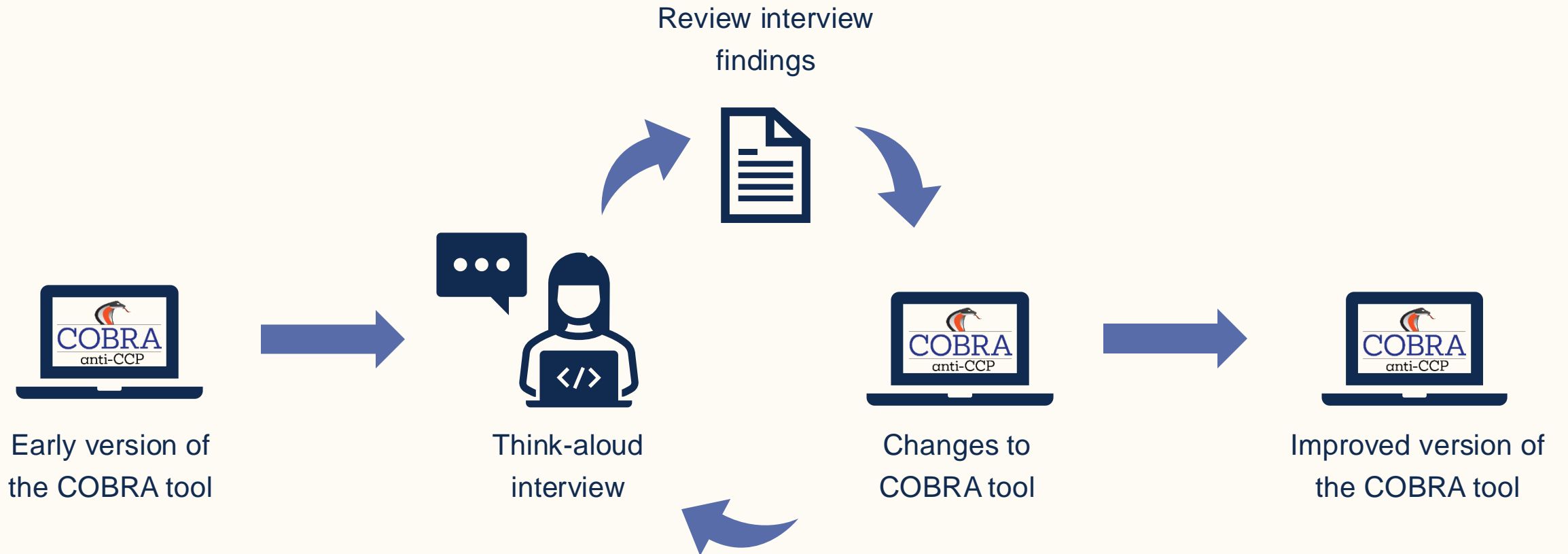
National Institute for  
Health and Care Research

[Jump to the COBRA tool](#)

[Jump to guidance for patients with synovitis](#)

[Show accessibility tools](#)

# Phase 3 overview



# Overall views of the COBRA tool

“I think it’s really good, really clear, and the actual tool itself is really quick to use, it’s all very relevant, very easy.”

FCP (3 years)

“I think the crucial thing is, I don’t want a tool for something, to find something early that I can’t make a good difference to.”

GP (30 years)

“But this just adds more weight to that discussion with the patient about why we’re not going to do further tests.”

GP (3 years)

# COBRA tool refinements

How to use the COBRA tool

Completing the tool

When to select 'Yes' for each variable

### COBRA tool

**First degree relative with RA**

Yes (+3)  No (0)

---

**Male sex**

Yes (+3)  No (0)

How to use the COBRA tool

**!**

If your patient has **synovitis (swelling) in one or more joints**, refer to rheumatology without delay as advised in the [National Institute for Health and Care \(NICE\) guideline for RA](#). Do not complete the COBRA tool as it is not intended for patients with synovitis.

Completing the tool

When to select 'Yes' for each variable

### COBRA tool

**First degree relative with RA**

How to use the COBRA tool

**!**

If your patient has **soft tissue joint swelling (synovitis) in one or more joints**, refer to rheumatology without delay as advised in the [NICE guideline for RA \[NG100\]](#). Do not complete the COBRA tool as it is not intended for patients with synovitis.

Completing the tool

When to select 'Yes' for each variable

### COBRA tool

**Does your patient have soft tissue joint swelling (synovitis)?**

Yes

No

# Welcome to the COULD it Be RA? (COBRA) tool

The COBRA tool is for primary care clinicians to use with patients with **new-onset** musculoskeletal (MSK) symptoms **without synovitis**.

[Jump to the COBRA tool](#)

[Jump to the recommended pathway](#)



The COBRA tool is a **clinical decision support tool**. It aims to help clinicians **identify people at risk of rheumatoid arthritis (RA) in primary care by**

[Show accessibility tools](#)

# Next steps



- Explore rheumatologists' experiences and current practice when identifying and managing/monitoring individuals who are anti-CCP positive without synovitis and at risk of developing RA.
- Develop clinical consensus recommendations for referring and managing individuals who are anti-CCP positive and at risk of developing RA in primary and secondary care.
- Refine and finalise the COBRA tool.



- Set priorities and define a strategy for monitoring at-risk individuals.
- Implement and evaluate the clinical- and cost-effectiveness of an integrated pathway of care across primary and secondary care services for individuals at risk of developing RA.

