

# Towards Prevention and Better management of Multimorbidity In **Common Allergic Conditions** Research Collaborative

**Impact:** This work will identify **unmet need** and **shape interventions** to **prevent** multimorbidity and **improve care** in people with multimorbidity amongst people with common allergic diseases.

**Novelty:** No previous research **focus on allergic disease**, despite high prevalence. Investigation of a **novel multimorbidity cluster** (skin, respiratory, neurological, and musculoskeletal).



<https://a-henderson91.github.io/MICAC>

## Work packages and partners

**Patient and public involvement** will be embedded in all work packages.

WP1. CLUSTERS OF MULTIMORBIDITY

WP2. MECHANISMS TOWARDS PREVENTION

WP3. TOWARDS BETTER CARE

Imperial College  
London



LONDON SCHOOL of  
HYGIENE  
& TROPICAL  
MEDICINE



Swansea  
University  
Prifysgol  
Abertawe



University  
of Glasgow



THE UNIVERSITY  
of EDINBURGH

## Data sources



Clinical Practice Research  
Datalink (CPRD)



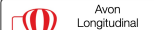
Secure Anonymised  
Information Linkage (SAIL)



UK Biobank



British Birth Cohorts



Avon Longitudinal  
Study of  
Children and  
Parents  
(ALSPAC)



Summary-level data from  
consortia



Clinical trials data

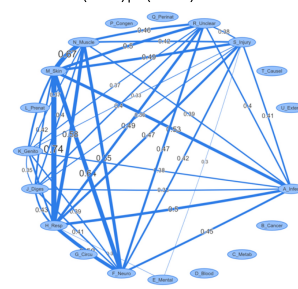


Interviews and  
focus groups

## Results from consolidator phase: eczema as an example

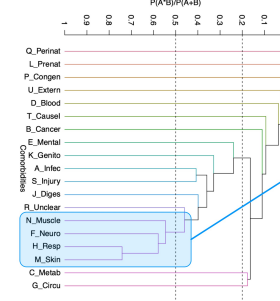
### Atopic eczema

(age, sex, practice, follow-up adjusted)  
 $P(A*B)|P(A+B) > 0.3$



### Cluster dendrogram

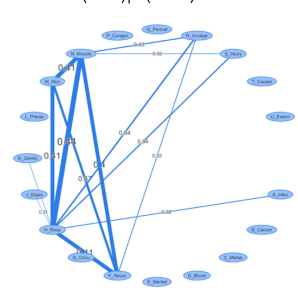
Atopic eczema  
 $P(A*B)|P(A+B)$



N\_Muscle  
F\_Neuro  
H\_Resp  
M\_Skin

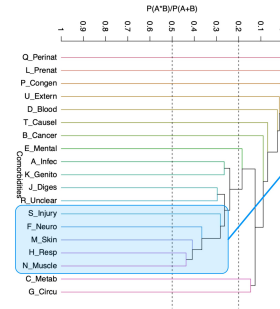
### Matched controls

(age, sex, practice, follow-up adjusted)  
 $P(A*B)|P(A+B) > 0.3$



### Cluster dendrogram

Matched controls  
 $P(A*B)|P(A+B)$



S\_Injury  
F\_Neuro  
M\_Skin  
H\_Resp  
N\_Muscle