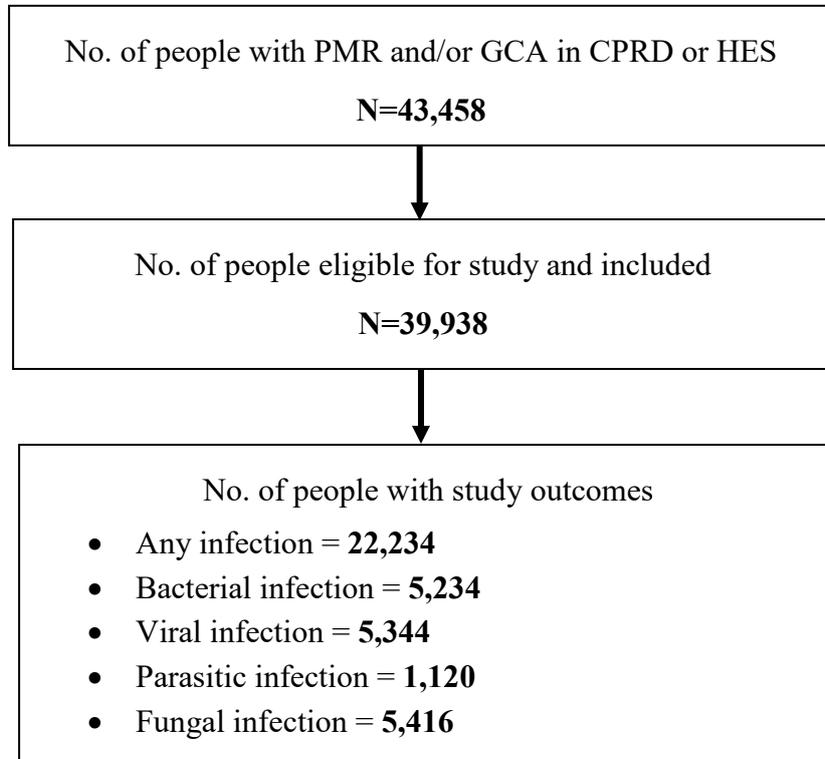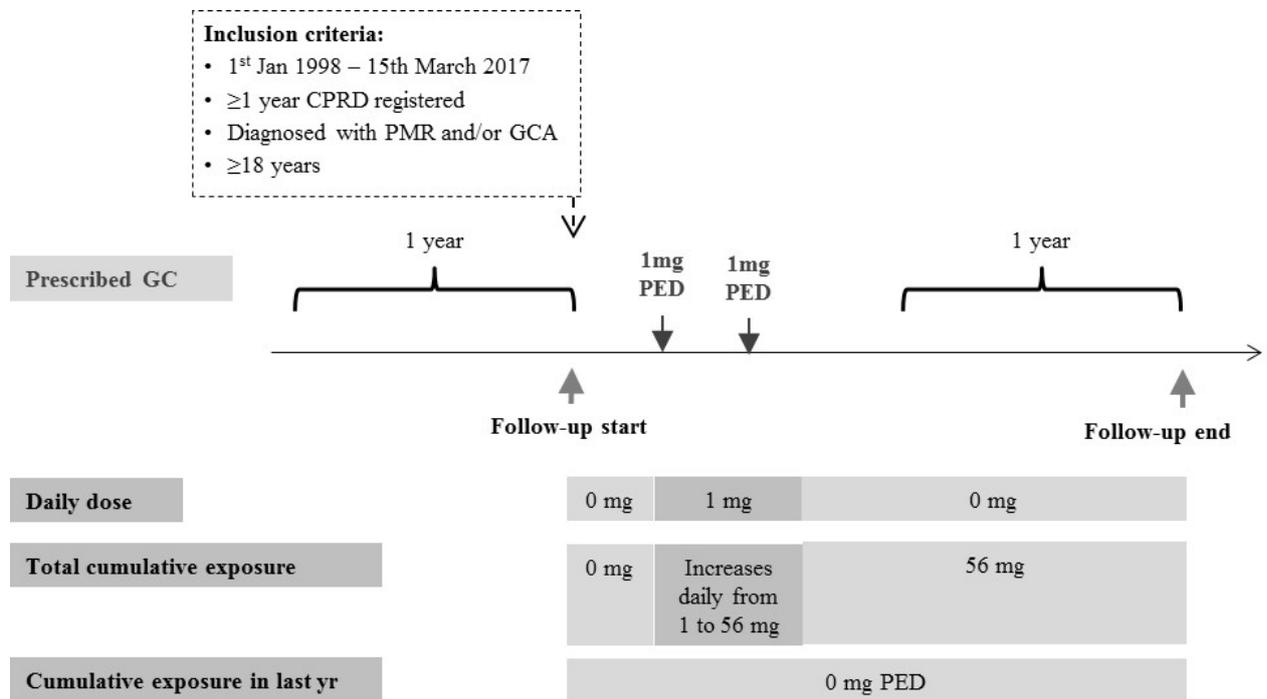# Appendix 1 (as supplied by the authors): Supplemental Figures 1-3

Supplemental Figure 1. Flow chart of the study cohort
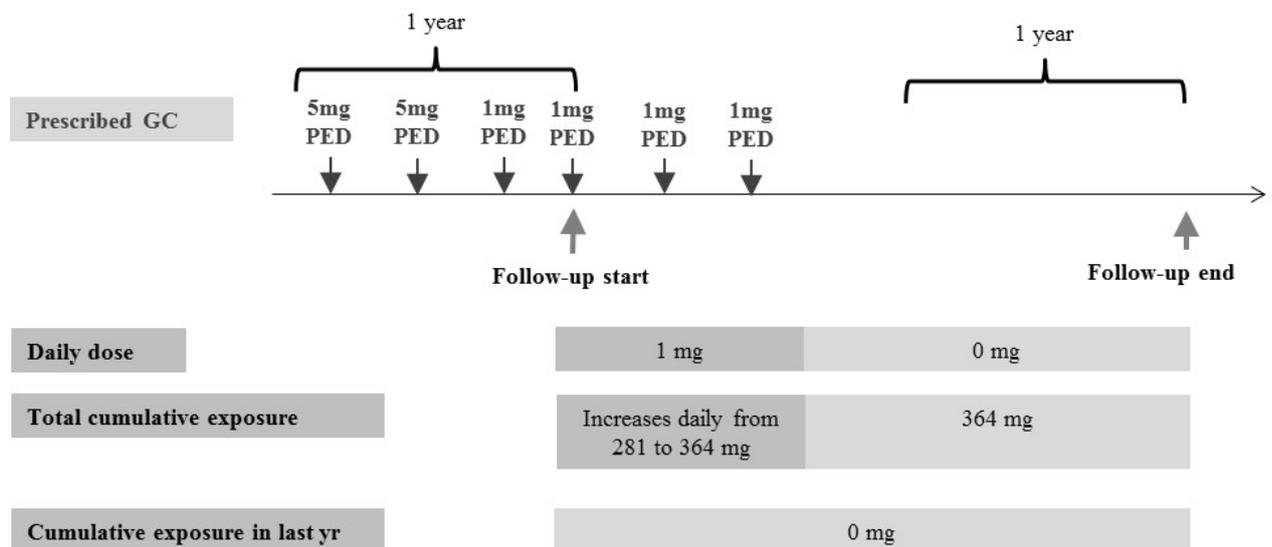
Supplemental Figure 2. Detailed calculation of time-variant glucocorticoid exposure variables

A. Glucocorticoids prescribed for 2 months during follow-up

Inclusion criteria:
- 1st Jan 1998 – 15th March 2017
- ≥1 year CPRD registered
- Diagnosed with PMR and/or GCA
- ≥18 years

Daily dose	0 mg	1 mg	0 mg

Total cumulative exposure	0 mg	Increases daily from 1 to 56 mg	56 mg

Cumulative exposure in last yr	0 mg PED

B. Glucocorticoids started prior to study entry and continued for 2 months during follow-up

Daily dose	1 mg	0 mg

Total cumulative exposure	Increases daily from 281 to 364 mg	364 mg

Cumulative exposure in last yr	0 mg

C. Glucocorticoids started prior to entry, continued for 2 months, then stopped and re-started for 2 months and 3 days
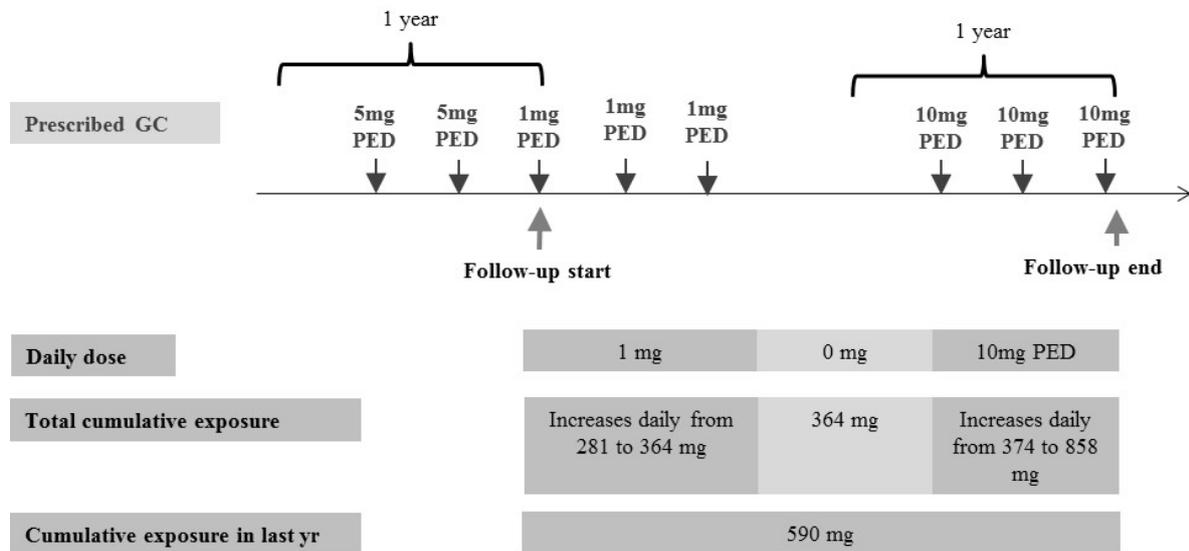
Note: For simplicity, the calculation of oral glucocorticoid exposure variables in this diagram assumes that the duration of each prescription is 28 days but in the study the recorded or derived duration of each prescription was used for calculations. For each patient, the follow-up was split so the value of the daily dose variable corresponds to the dose prescribed for the duration of each prescription and changes during follow-up when the prescribed dose is modified. The patient follow-up was split so that the value of the total cumulative exposure variable changed daily to add up the daily dose of each the prescriptions issued between 1 year prior to the start of follow-up and the appropriate date until the end of follow-up. The value on the last day of follow-up was therefore calculated as: 2 prescriptions of 5mg (x 28 days) + 3 prescriptions of 5mg (x 28 days) + 2 prescriptions of 10mg (x 28 days) + (10mg x 3 days between last prescription and end of follow-up date) = 858 mg PED. The value of the variable for cumulative exposure in the last year was calculated adding up the daily dose of all prescriptions issued in the last year of follow-up. The value was therefore calculated as: 2 prescriptions of 10mg (x 28 days) + 1 prescription of 10mg (x 3 days) =590mg PED. Patients with prevalent and incident PMR and/or GCA were included in the study.

Supplemental Figure 3. Algorithm for identification of infections in electronic health records

GROUP A – Diagnostic code for any of the following infections:
- Meningitis
- Pneumonia
- Tuberculosis
- Empyema
- Septicaemia
- Peritonitis
- Diabetic foot infection
- Abscess
- Urinary tract infection recorded in hospital admissions
- Codes for acute: conjunctivitis, mastoiditis, pharyngitis, sinusitis, tonsillitis, otitis, cutaneous cellulitis, osteomyelitis, appendicitis, cholecystitis, gastroenteritis, colitis (excluding toxic, radiation or diet related and non-infectious)
- Candidiasis
- Viral hepatitis with no mention of chronicity
- Other general infections with no location specified (e.g. herpes zoster, wound infection)

OR

GROUP B – Diagnostic codes for any of the following infections and antibiotic prescribed within 2 months:
- Urinary tract infection recorded in primary care
- Codes for chronic or unspecified chronicity: conjunctivitis, mastoiditis, pharyngitis, sinusitis, tonsillitis, cutaneous cellulitis, otitis, osteomyelitis, appendicitis, cholecystitis, gastroenteritis, colitis
- Acute or unspecified chronicity for respiratory symptoms or chest infection
- Diverticulitis
- Intestinal perforation

OR

GROUP C - Diagnostic codes for any of the following infections and antiviral drug prescribed within 2 months:
- Influenza
- Parainfluenza
- Viral hepatitis with mention of chronicity

Note: The diagnostic codes of the International Classification of Diseases version 10 used to identify infections are listed in eTable 2