We conducted a rapid review to investigate the role of PPI in guideline implementation. Objectives: We aimed to explore the extent to which PPI has been reported in rheumatology research and guidelines, with a focus on its influence on decision-making and implementation. Methods: A comprehensive search for relevant literature was undertaken (three databases - Medline, Embase, Cinahl, and two large repositories - WHO, G-I-N). A priori eligibility criteria and systematic review-based methods were used to identify primary studies with explicit reference to PPI involvement in a rheumatic/musculoskeletal - MSK guideline implementation activity. Extracted data from included studies was interrogated for details regarding activities, contexts, outcomes, and impact of PPI in guidelines implementation and further discussed in review project meetings. Findings: Ten papers were included, only one from the global south. A prevalence of consultative PPI activities in guidelines dissemination (e.g., language translations, patient versions) was found. Few studies explicitly report high-level PPI engagement in relation to care pathway adaptations, adjustment in institutional operations and policy with a view to MSK guideline implementation. Training, development, and practice of PPI in MSK guideline implementations were not evidenced to have spread much beyond Europe and are also not well reported in literature nor rightly accrued as PPI activities in guideline implementation. The alliance framework (Figure 1) highlighting an iterative process of "creative thinking/co-production" and "strategic doing" helps to conceptualise PPI in MSK guideline implementation. The framework guides knowledge translation from guidelines to real world practice and aims to drive quality improvement for MSK care with patients, for patients, across and within care settings globally.

**Figure 1. The Alliance framework for conceptualising Patient and Public Involvement in Rheumatic and Musculoskeletal guidelines implementation.**

**Conclusion:** Despite success of PPI in rheumatology/MSK research, oversight or ineffective PPI in guideline implementation may hamper translation of novel advances in MSK care into real world practice and patient benefit. The Alliance framework prioritises effective involvement in MSK guideline implementation design, delivery, and evaluation, ideally aligned in parallel with the development of evidence-based guidance recommendations. It highlights continuous application of innovative thinking, dynamic, and impactful collaborations for bridging the evidence-practice gap and improving quality of care for MSK patients globally through novel partnerships.

**Disclosure of Interests:** None declared.

**Vaccination in rheumatic diseases with lessons from COVID**

**OP0191**

**CONCEPTUALISING PATIENT AND PUBLIC INVOLVEMENT IN MUSCULOSKELETAL GUIDELINES IMPLEMENTATION: THE ALLIANCE FRAMEWORK**

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**Background:** Patient and Public Involvement (PPI), have supported high quality Rheumatology research which have now been successfully curated into widely endorsed evidence-based recommendations and guidelines. However, uptake and applicability of guidelines is less than optimal, significant variation exist in care, and health and socio-economic burdens attributed to rheumatic conditions continues to rise, suggesting an implementation challenge.

**Objectives:** We conducted a rapid review to investigate the role of PPI in guideline implementation.

**Methods:** A comprehensive search for relevant literature was undertaken (three databases - Medline, Embase, Cinahl, and two large repositories - WHO, G-I-N). A priori eligibility criteria and systematic review-based methods were used to identify primary studies with explicit reference to PPI involvement in a rheumatic/musculoskeletal - MSK guideline implementation activity. Extracted data from included studies was interrogated for details regarding activities, contexts, outcomes, and impact of PPI in guidelines implementation and further discussed in review project meetings. Findings: Ten papers were included, only one from the global south. A prevalence of consultative PPI activities in guidelines dissemination (e.g., language translations, patient versions) was found. Few studies explicitly report high-level PPI engagement in relation to care pathway adaptations, adjustment in institutional operations and policy with a view to MSK guideline implementation. Training, development, and practice of PPI in MSK guideline implementations were not evidenced to have spread much beyond Europe and are also not well reported in literature nor rightly accrued as PPI activities in guideline implementation. The alliance framework (Figure 1) highlighting an iterative process of “creative thinking/co-production” and “strategic doing” helps to conceptualise PPI in MSK guideline implementation. The framework guides knowledge translation from guidelines to real world practice and aims to drive quality improvement for MSK care with patients, for patients, across and within care settings globally.

**Conclusion:** Despite success of PPI in rheumatology/MSK research, oversight or ineffective PPI in guideline implementation may hamper translation of novel advances in MSK care into real world practice and patient benefit. The Alliance framework prioritises effective involvement in MSK guideline implementation design, delivery, and evaluation, ideally aligned in parallel with the development of evidence-based guidance recommendations. It highlights continuous application of innovative thinking, dynamic, and impactful collaborations for bridging the evidence-practice gap and improving quality of care for MSK patients globally through novel partnerships.

**Disclosure of Interests:** None declared.

**Vaccination in rheumatic diseases with lessons from COVID**

**OP0192**

**SEROLOGICAL RESPONSE AND SAFETY OF A THREE-DOSE SARS-COV-2 VACCINATION STRATEGY IN PATIENTS WITH IMMUNE-MEDIATED INFLAMMATORY DISEASES ON IMMUNOSUPPRESSIVE THERAPY**

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**Background:** Patients with immune-mediated inflammatory diseases (IMIDs) on immunosuppressive therapy have an inadequate serologic response following two-dose SARS-CoV-2 vaccination, and a standard vaccination strategy of three doses for this patient group is currently under implementation in several countries. However, the serological response and safety of this strategy has not been evaluated. Objectives: To assess serological response and safety of a three-dose vaccination strategy in IMID patients on immunosuppressive therapy as compared to standard two-dose vaccination of healthy controls.

**Methods:** The prospective observational Nor-vaC study (NCT04798625) enrolled adult patients on immunosuppressive therapy for inflammatory joint- and bowel diseases. Healthy controls were health care workers from participating hospitals. All participants received standard vaccines according to the national vaccination program with three doses in patients and two doses in controls. The third dose was offered to IMID patients 4 weeks after the second dose. Analyses of antibodies binding the receptor-binding domain of the SARS-CoV-2 Spike protein were performed prior to, and 2-4 weeks after the third and second vaccine doses. Levels were compared across groups by Mann-Whitney U tests and multivariate linear regression was used to identify predictors of response.

**Results:** Overall, 961 patients (315 rheumatoid arthritis, 156 spondyloarthritics, 171 psoriatic arthritis, 132 ulcerative colitis and 182 Crohn’s disease) (median age 54 years [IQR 43-64]; 56 % women) and 227 controls (median age 44 years [IQR 32-55]; 83 % women) were included in the present analyses. TNF monotherapy was used by 399 patients, 229 used TNF in combination with other immunomodulators, 189 methotrexate monotherapy, 39 vedolizumab, 32 JAKi and 73 patients used other drugs. Patients on rituximab were not included. Patients were vaccinated with Pfizer BNT162b2 (64% patients, 14% controls), Moderna mRNA-1273 (16% patients, 40% controls) or a combination of vaccines (30% of patients, 46% of controls). Patients received the third vaccine dose a median of 120 (IQR 102-143) days after the second dose. After two doses, median anti-Spike antibody levels were significantly lower in patients (861 BAU/ml (IQR 120-143) days after the second dose. After two doses, median anti-Spike antibody levels were significantly lower in patients (861 BAU/ml (IQR 120-143) days after the second dose.

**Conclusion:** This study suggests that a third vaccine dose for immunosuppressed patients closes the gap in serological response between patients and