Are we following practice-based guidelines for standard immunizations in Rheumatoid Arthritis [RA] patients? Pro2021002174

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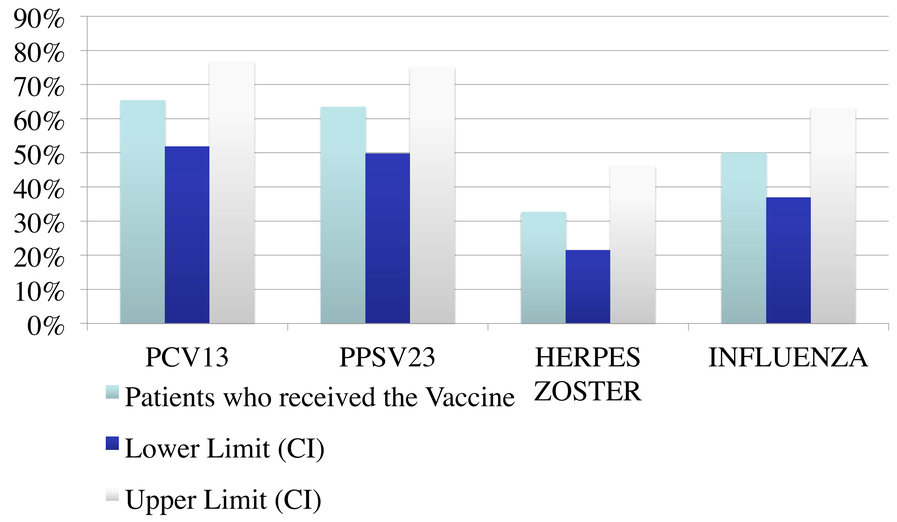
Background

- Rheumatoid arthritis (RA) patients have an increased burden of infections, attributed to the underlying autoimmune disease, other comorbidities, and immunosuppressive therapy[1].
- Vaccinations are recommended by international guidelines, but vaccination rates are still reported to be suboptimal in the United States and Europe[2].
- Pneumococcal is an essential vaccine recommended in all immune-compromised patients. Guidelines recommend a vaccination scheme with pneumococcal conjugate vaccine (PCV13) then pneumococcal polysaccharide vaccine (PPSV23) at least eight weeks after the first dose.
- Influenza vaccination is recommended for immune compromised patients as well. Incidence of Influenza in immunosuppressed patients is nearly twice than the general population[3].
- Previously, the live-attenuated Herpes Zoster (HZ) vaccine was only considered in certain RA patients[3]. A new non-live recombinant subunit adjuvant zoster vaccine, Shingrix, was licensed in 2017. The vaccine is recommended for adults 50 years and older, including immunosuppressed patients, and administrated in two intramuscular doses. Shingrix has been shown to be safe and more efficacious compared with live-attenuated vaccine in elderly adults[4].

Figure 1 – Results for specific immunizations in RA patients from April 2021 to April 2022



Methods

- IRB determined non-human subject study
- Retrospective quality assurance study of adult immunizations received and documented in diagnosed Rheumatoid Arthritis patients (18+ years old) at the NJMS Rheumatology Clinic
- Randomly selected 52 patient charts over the past one year (April 2021 – April 2022)

Results

- PCV13 and PPSV23 vaccines were given 64% of the time (95% CI 0.52-0.77)
- Herpes Zoster vaccine was given 33% of the time (95% CI 0.22-0.46)
- Influenza vaccine was given 50% of the time (95% CI 0.33-.59)
- Results noted in Figure 1

Discussion

- Potential confounding factors to consider with this study include a) documentation, may be entered incorrectly and/ or not entered by doctor or ancillary staff b) vaccination may have been obtained outside of the hospital, c) HZ vaccine was previously a live-attenuated vaccine (for high-risk patients only) and this may be attributing to low numbers as it just recently became attainable in clinic.

Conclusion

- A previous 2013 QI study in 13 Rheumatology clinics showed an improvement of PPSV23 rates from 27.9% to 61.5%, lower than our results[5].
- Another QI project improved HZ vaccines from the pre-intervention period of 10.1% to 51%, this is higher that the results we saw[6].
- Using these comparisons and our own data, we have determined that there is a need to increase the rate of vaccinations in our rheumatoid arthritis patients, specifically the HZ and Influenza vaccines.
- Applying our results as a quality assessment, we will aim to provide interventions that will improve the rate of vaccinations in our clinic in the future.

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