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AMGA Foundation

Best Practices in Managing Patients with Rheumatoid Arthritis

The Polyclinic

Improving Vaccination Rates in the RA Population

Organizational Profile

Nearing its 100th anniversary, The Polyclinic is a large, independent, multispecialty clinic with more than 200 physicians practicing in over 30 specialties. It has five clinical rheumatologists, one of whom is also active in clinical research. The Polyclinic participates in a Medicare Shared Savings Program as an accountable care organization, has several other shared savings contracts with insurers, and has been reporting quality measures for Medicare since 2013. The Polyclinic providers practice at a total of 13 outpatient clinical sites, many of these solely as primary care clinics. Rheumatologists provide care at two of these sites.

The Polyclinic is recognized for its excellence in the quality of patient care. In 2013, The Polyclinic was noted to be one of five medical groups in the state of Washington rated with a better-than-average patient experience.[1] The Polyclinic's culture of continuous process improvement (CPI) allows it to systematically improve patient care in a cost-efficient way. Objective recognition for these efforts includes The Polyclinic's receipt of the 2014 Amerinet Healthcare Achievement Award for its redesigned, highly efficient laboratory services. The Polyclinic's providers have also received recognition from the National Committee for Quality Assurance for Diabetes and Heart/Stroke Recognition Programs. The Polyclinic has grown dramatically over the past five years and is well positioned to meet the ever-changing challenges in the healthcare industry with a long tradition of delivering high-quality, comprehensive, and personalized care.

Project Summary

The prognosis of patients with RA has been undeniably improved by rheumatologists' understanding of the need for rapid treatment escalation, as well as the continued development of intensive therapies. However, despite the frequency of immunosuppressant medication use for rheumatic conditions, attention to and adherence with recommended vaccination schedules remains suboptimal.[2]

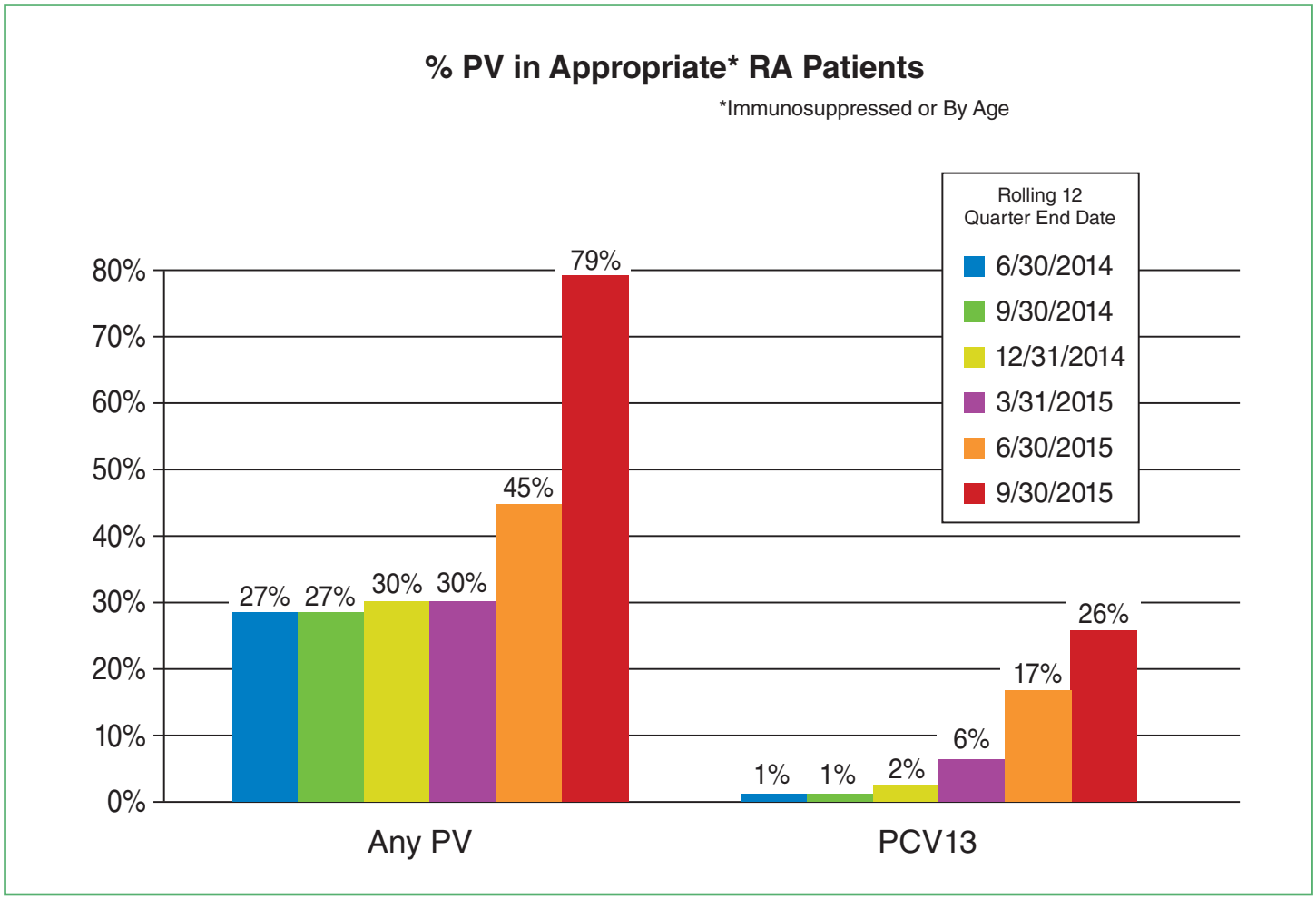
In order to address this gap in quality of care, The Polyclinic developed a process to systematically obtain and document pneumococcal vaccinations (PV) in its RA population, identifying individuals in need of vaccination. Initially, The Polyclinic planned to coordinate vaccinations with a patient's primary care provider (PCP) or pharmacy. However, it was not until it began stocking the 13-valent pneumococcal conjugate vaccine (PCV13) and the 23-valent polysaccharide pneumococcal vaccine (PPSV23), offering them to patients at the time of their rheumatology visit, that vaccination rates saw a notable increase.

Participation in this Collaborative project required reporting of three quality measures in the management of RA, specifically Medicare's PQRS measures #108 (DMARD therapy for RA), #177 (Periodic Assessment of Disease Activity), and #178 (Functional Assessment). Although two rheumatologists had been recording measures of RA status, The Polyclinic did not have a regular way to document or track these. With assistance from this collaboration, it was provided resources to design and build flowsheets in the EMR allowing it to develop a systematic process for collecting and recording these measures.

Program Goals and Measures of Success

Pneumococcal Vaccination Project: The Polyclinic's project goal was to improve PV rates in RA patients requiring them due to immunosuppression and/or age. It used multiple sources to obtain the immunization data. This included searches in Care Everywhere (interoperability function of EPIC), reviews of the Washington State Immunization Information System

Table 1



(WA IIS), and, if needed, requests of vaccination data from a patient's PCP. The Polyclinic also queried Verisk for insurance claims. Searches of the WA IIS registry identified an additional 20% of historical PVs not captured by EMR search alone. For purposes of the analysis, The Polyclinic selected receipt of any PV in appropriate RA patients, with a secondary analysis being immunization with PCV13.

The Polyclinic initially piloted the project with a single provider. The day's schedule was reviewed and patients eligible for PV were identified the morning of their appointment. During the rooming process, the patient would be informed of the recommendation for PV and given written information. If needed, the patient had the opportunity to ask questions during the clinic visit. At the start of the project, The Polyclinic did not stock PV in its rheumatology clinic because of the desire to provide financial counseling for patients regarding costs and insurance coverage before administering vaccinations. However, with the number of insurers and their respective contracts, this proved to be exceedingly difficult. In April 2015, The Polyclinic decided to offer PCV13 vaccinations and, more recently, PPSV23. These changes led to substantial improvement in corresponding vaccination rates (Table 1).

PQRS Measure #108 (DMARD Therapy for RA): At baseline, frequency of DMARD therapy for RA patients was already robust, a finding which remained constant throughout the study period (Table 2). For the analysis, several exclusion criteria had been specified (e.g., pregnancy). However, with The Polyclinic's baseline outcomes before adjustment for exclusions, and to use IT analyst time efficiently, the medical group decided to forgo additional analyses incorporating these exclusion criteria. Therefore, it is possible The Polyclinic's frequency of DMARD use may actually be greater than the rates reported.

PQRS Measures #177 (Disease Activity) and #178 (Functional Status): For the purposes of this Collaborative project, The Polyclinic chose the RAPID 3 questionnaire for the collection of disease activity and functional status. Although many composite measures have demonstrated reliability and validity in assessing disease activity and function, The Polyclinic selected RAPID 3 in part for the minimal time needed for its completion and scoring, as well as its ability to be administered and recorded without interfering with a provider's workflow. For reporting the other two Medicare PQRS measures, The Polyclinic needed to develop a way to record these outcomes in its EMR. Additional quality measures were built into the flowsheet, such as the CDAI and Disease Activity Score (DAS28), as these include objective findings (e.g., the inclusion of joint counts and acute phase reactants), which can supplement outcomes of patient reports only.[3] After evaluating different ways these outcomes could be captured in EPIC, The Polyclinic decided to build these in a documentation flowsheet, which was completed in February 2015.

Prior to the documentation flowsheet, one rheumatologist regularly assessed both of these measures in RA patients, while another provider collected disease activity intermittently, with each recorded in different locations of the EMR.

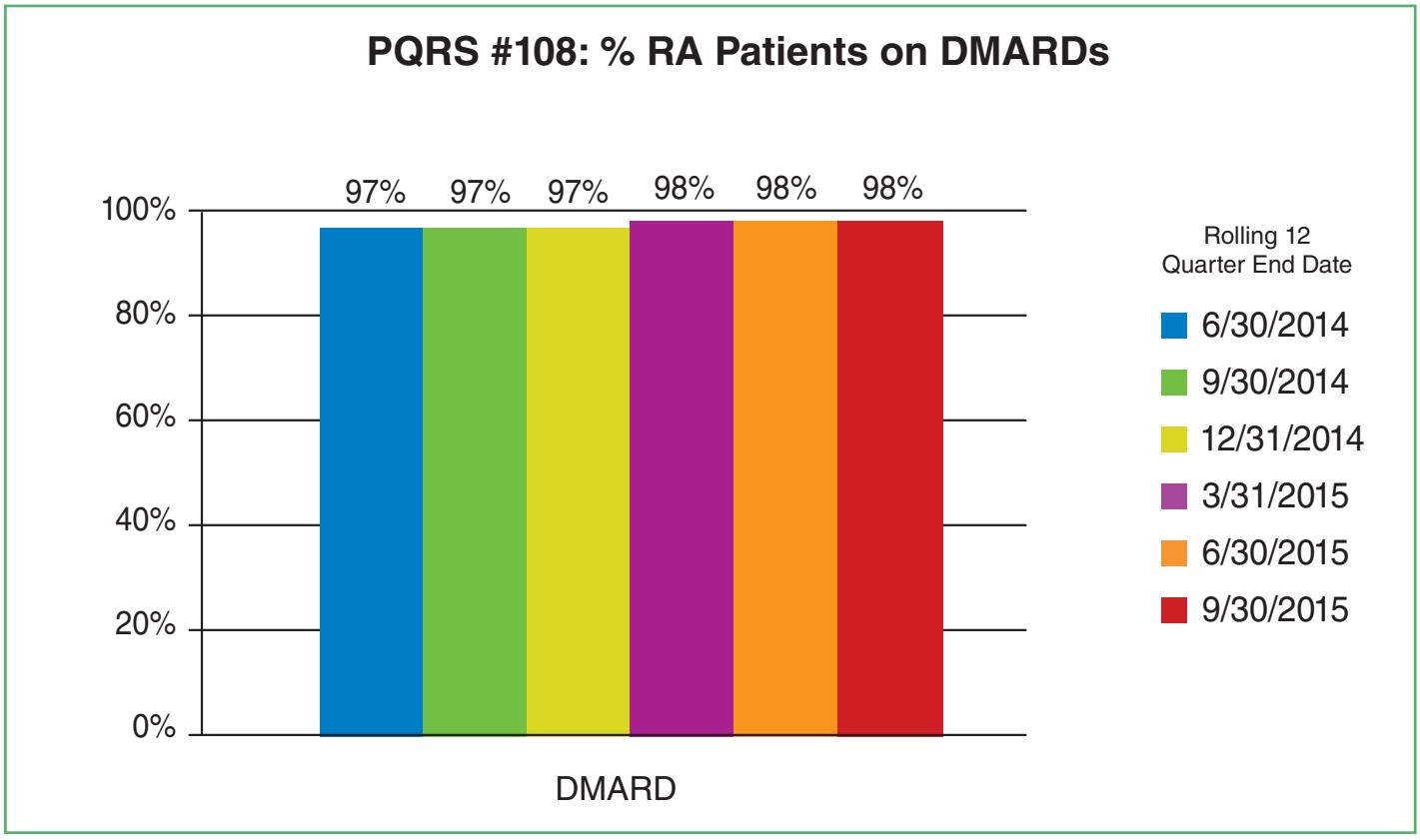
Population Identification

The Polyclinic's five rheumatologists provide care at two of its 13 sites and have active privileges at the largest non-profit hospital system in its metropolitan area. Moreover, its rheumatologists serve a wider regional population. Specifically, about 12% of its RA patients live more than 50 miles away.

In 2013, The Polyclinic's rheumatologists (4.5 FTE) evaluated 993 unique patients with the diagnosis of RA. Over the course of the year, they had a total of over 4,500 visits for these patients. The Polyclinic's multispecialty group has an infusion center which at the time administered over 1,500 intravenous therapies for RA patients who receive infusions locally.

EPIC has been The Polyclinic's EMR since 2009 and is integrated with the above-mentioned hospital system

Table 2



and affiliated outpatient clinics, which in turn employ over 4,400 physicians and allied health providers. While 42% of The Polyclinic's RA patients have PCPs affiliated with its multispecialty group, another sizeable proportion receive their primary care through outside providers who are still within its shared EMR system. In addition, due to the interoperability function of The Polyclinic's EMR through Care Everywhere, it now has access to data from other regional hospital systems and their affiliates, increasing its ability to access health-related information for patients who may only see the medical group for subspecialty care.

Intervention

Pneumococcal Vaccination Project: The need for vaccinations in vulnerable populations, such as those who are immunosuppressed, is undeniable. However, the vaccination rates of RA patients are generally accepted to be low.[4] The widespread use of EMRs, as well as the interconnectedness of EMR systems, provides an opportunity to more easily identify gaps in care and access patient information from other medical organizations. Baseline analyses revealed that in The Polyclinic's own patient population less than a third of our RA patients who required at least one PV had EMR documentation of any PV immunization. Due to The Polyclinic's broad search for historical vaccinations the frequency of PV documentation increased during the study period, in part due to the simple collection of previously administered vaccinations.

With the assistance of input from the sponsors and participants of this Collaborative, The Polyclinic made several modifications, including changes in the selection of patients, outcomes, as well as in implementation. The medical group's initial proposal was to limit the inclusion of the Collaborative to RA patients with a PCP in The Polyclinic system, as this was thought to be associated with more up-to-date vaccination records as well as the assumption that its partners would be more responsive to its vaccination requests. However, during the study period with the increased connectedness of The Polyclinic's EMR to numerous local and regional medical systems it became logical to expand the project to include all of its RA patients.

We initially proposed an aim for compliance with all recommended vaccinations per the 2012 American College of Rheumatology (ACR) guidelines.[5] Clearly, this project scope was too broad, so The Polyclinic limited it to PV immunizations only. In addition, while the ACR guidelines endorse PV in all RA patients (i.e., even those who are not immunosuppressed), The Polyclinic found these harder to justify. As a result it applied the more broadly accepted Centers for Disease Control (CDC) recommendations.[6] Still, the CDC recommendations for PV are complex and there is variation in the sequence and/or time interval between PCV13 and PPSV23 according to prior vaccination status. The Polyclinic's main outcome was the receipt of any PV (i.e., PPSV23 and/or PCV13) in patients who were immunosuppressed or due by age. However, since PCV13 is recommended to be provided first to unvaccinated patients,[7] and its more robust effectiveness for immunosuppressed patients,[8] The Polyclinic chose the receipt of PCV13 as a secondary endpoint. It was easier than expected to identify patients who required PCV13 immunizations, as a considerable number could at least recall that their last PV was over three years ago, while the CDC recommendations to immunize immunosuppressed individuals and persons aged 65 or older with PCV13 was published in 2012.[9]

The selection of PV for the project was fortuitous in regards to insurance reimbursement and a lack of financial counseling. The Polyclinic planned to provide vaccinations in-clinic once it could provide patients with information regarding insurance coverage and vaccination charges. Due to the number of insurance contracts and differing reimbursement rates, obtaining this information proved to be a substantial barrier. In order not to further delay the administration of required vaccinations, The Polyclinic decided to stock and administer PVs without financial counseling. To date, insurance coverage has not been an issue and it has not received any patient concerns regarding vaccination charges.

RA Disease Activity and Function Status: For this project, The Polyclinic initially needed to determine where RA outcome measures should be recorded in the EMR. The most appealing method appeared to be in the EPIC Synopsis view, but since this was not available to us at this time, it was decided to build the outcome fields in the documentation flowsheet for its ease of recording and visualizing data.

For the implementation of this project, The Polyclinic developed a process in which, upon check-in, patients were provided with the RAPID 3 questionnaire, which was then scored and entered in the EMR by the rooming staff. In order to reduce confusion regarding which patients should receive questionnaires and to increase capture rates, it was

recommended to provide them to all patients, regardless of diagnosis. Moreover, there is emerging data that these measures, although designed for RA, may be of value in monitoring other inflammatory and non-inflammatory chronic conditions.[10] As expected, the development of a standard process to obtain measures of disease activity and function as well as the incorporation of these measures in the EMR documentation flowsheet led to the greatest improvements in data collection (Table 3).

For all outcomes, data was analyzed on a quarterly basis over a rolling 12-month period. The total number of RA patients included in the analyses ranged from 915 to 1,009.

Leadership Involvement & Support

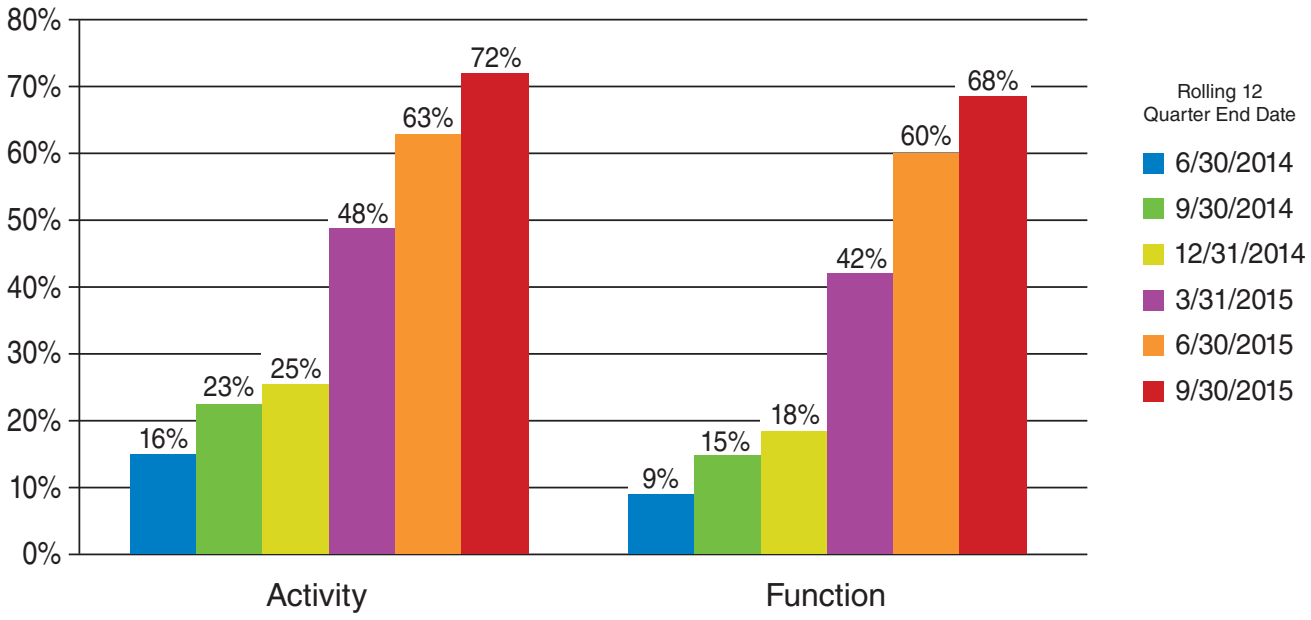
The Polyclinic is fortunate to have enthusiastic support from its administration and leadership. Its Chief Medical Officer strongly encouraged participation in this Collaborative, and during the project it benefited from working closely with its Medical Director of Quality. Being a physician-owned group was also advantageous, as The Polyclinic's culture is entrepreneurial and encourages individual groups to be actively involved in improving patient experience, access, and quality of care. Its institution's experience with and commitment to CPI aligned well with the AMGA Foundation program's requests and goals.

As with many medical groups, The Polyclinic IT team is profoundly busy with competing demands for their time. Despite this, two analysts were assigned who were invaluable for their analyses as well as their design of the flowsheets, and are greatly responsible for the success of the project.

This Collaborative provided not only financial resources, but importantly, the support of other rheumatologists experiencing similar pressures and challenges. Through the meetings and webinars, participants were given the opportunity to share obstacles and accomplishments, allowing more rapid improvements and refinement of our project. The development

Table 3

PQRS #177 and #178:
Assessment of RA Disease Activity and Functional Status



of this network of rheumatologists interested in quality improvement also provides The Polyclinic with a valuable ongoing resource as it identifies and initiates future projects. Although the Collaborative project is completed, it is the hope that this group of rheumatologists may have opportunities for additional opportunities in the future.

Lessons Learned and Ongoing Activities

Moving forward, The Polyclinic continues the collection of the PQRS measures of disease activity and functional status for RA patients. Its next steps include the development of a system for the formal reporting of results to individual providers. Differences in these outcomes according to individual providers can then be examined to identify processes or workflows associated with better outcomes or those that may serve as barriers. It should be recognized that improving outcomes in RA does not only consist of the regular assessment of these measures, but using them to direct adjustments in medication regimens, as demonstrated by the Tight Control in RA (TICORA)[11] and Triple Therapy in Early RA studies,[12] among others. Future plans, therefore, include the development and implementation of treatment protocols that would prompt DMARD escalation according to disease activity.

The Polyclinic will continue its vaccination project for pneumococcus, expanding to other immunosuppressed rheumatology patients or those due by age. Expansion of the project will next involve Herpes Zoster (HZ) vaccination in RA patients. This is anticipated to be more challenging than PV due to issues of vaccine cost and insurance reimbursement, as well as the storage and administration of the HZ vaccine.[13,14] Moreover, The Polyclinic anticipates baseline vaccination rates of HZ may be lower as not all healthcare providers are aware of the appropriateness of vaccination in selected immunosuppressed patients (e.g., methotrexate at dosages ≤ 0.4 mg/kg/week).[15] For rheumatologists, one of the greatest challenges is remembering to recommend vaccination against HZV before the need escalates to biologic therapy.

Looking forward, The Polyclinic can provide more efficient quality of care by assigning specific tasks to the most appropriate member of the care team. Vaccination of patients does not require a physician's participation. Development of a standardized system in which the assigned staff member recognizes the need for vaccination, obtains patient consent, and then administers the vaccination would be the ultimate goal.

Acronym Legend

CDAI: Clinical Disease Activity Index
DMARD: Disease-Modifying Anti-Rheumatic Drug
HAQ: Health Assessment Questionnaire
MDHAQ: Multi-Dimensional Health Assessment Questionnaire
PQRS: Physician Quality Reporting System
RAPID 3: Routine Assessment of Patient Index Data 3
SDAI: Simple Disease Activity Index

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