

**Title:** Factors Leading To Poor Adherence to Secondary Prophylaxis of Rheumatic Fever

**Category:** Prevention

### **Abstract**

**Background:** Secondary prophylaxis (SP) of acute rheumatic fever (RF) with monthly injections of benzathine penicillin-G is the only effective strategy at both community and population levels, however, adherence to the same is variable. Therefore, aim of this study was to determine the level of adherence and possible barriers to SP among diagnosed cases of rheumatic heart disease (RHD).

**Methods:** This cross-sectional study was conducted at a cardiac tertiary care center in Pakistan. Patients of either gender, age between 5 to 55 years, and diagnosed with RHD were included. Adherence and possible barriers to SP were assessed using a structural questionnaire.

**Results:** Among total of 40 patients 70%(28) were female, mean age was  $27.22 \pm 13.58$  years. Mean duration since diagnosis of RF was  $67.88 \pm 76.54$  months. Severe mitral stenosis was observed in 50.0%(20) cases, severe mitral regurgitation in 35.0%(14), severe aortic stenosis in 2.5%(1), severe aortic regurgitation in 2.5%(1), and severe tricuspid regurgitation was observed in 25.0%(10) of the patients.

Benzathine Penicillin injection was prescribed to 82.5%(33) patients, out of them 56.8%(21) were counseled regarding duration of SP. 67.6%(25) patients had taken SP. Frequency of getting injections was once in 3-weeks in 38.5%(10), once in 4-weeks in 50%(13), once in 6-months in 7.7%(2), and once a year in 3.8%(1) patients. Only 40%(16) were still taking the treatment. Reason for non-adherence were painful injection (20.8%), allergic reaction (8.3%), no nearby health facility (12.5%), non-availability of injection (4.2%), financial constraints (4.2%), friends/family advised otherwise (12.5%), felt sick and unable to take injection (8.3%), pregnancy (4.2%), and lactation (4.2%).

**Conclusion:** Low adherence to the SP was observed among diagnosed cases of rheumatic heart disease in our population. Reasons for non-adherence for majority the patients were painful injection, no nearby health facility, friends/family advised otherwise, allergic reaction, and felt sick and unable to take injection.

**Clinical Implications:** It remains vital to identify barriers to SP in our population and propose an effective method to combat this devastating disease.