Clinical algorithm for the assessment of non-central leakage of a bio-prosthetic valve

Morphologic analysis of the valve immediately after valve replacement;
Normal leaflet motion and/or valve seating?

Yes  No

Location of the regurgitant jet with CFD analysis

Extra CPB run is considered if the leak is moderate to severe.

Central  Non-central

Normal regurgitation (The leak will be mild.)  Diagnosis of the site of the leakage

Non-para-valvular  Para-valvular

Protamine administration and observation  Extra CPB run is considered if the leak is moderate to severe.