

*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.