



Government of Karnataka  
Health and Family Welfare Department  
Suvarna Arogya Suraksha Trust

*VAJPAYEE AROGYASHREE SCHEME*

**Hand-book on Follow-up Treatment**  
**Protocols for cardiac procedures**

**FOLLOW-UP RECOMMENDATIONS,  
INVESTIGATIONS AND MEDICATIONS  
FOR PATIENTS WHO HAVE  
UNDERGONE CARDIAC PROCEDURES  
UNDER VAJPAYEE AROGYASHREE  
SCHEME**

**CATALOGUE**

1. Preamble.....3

2. Follow-up protocol for patients after Heart Valve Surgery.....8

3. Follow-up protocol for patients after CABG.....10

4. Follow up protocol for patients after Angioplasty.....12

5. Follow-up protocol of patients after PTMC / BMV.....14

6. Follow-up protocol of patients after ASD/ VSD/ PDA Device Closure.....15

7. Follow-up protocol of patients after ASD/ VSD/ PDA Surgical Closure.....16

8. Follow-up protocol of patients after Intra Cardiac Repair for TOF and other cyanotic heart diseases.....17

9. Follow-Up Procedure rates.....18

10. Follow-Up Proforma.....19

11. Government Order.....20

## **Preamble**

Suvarna Arogya Suraksha Trust has been implementing the Vajpayee Arogyashree Scheme since 2010. Initially launched in Gulbarga and Belgaum Divisions, the scheme was rolled out in the entire State from June 2012 onwards.

Vajpayee Arogyashree Scheme (VAS) managed by Suvarna Arogya Suraksha Trust (SAST) was introduced as a health assurance scheme in the State of Karnataka, India to improve access of both urban and rural Below Poverty Line families towards quality tertiary medical care for treatment of identified diseases involving hospitalization, surgery and therapies through an identified network of health care facilities. It provides **cashless treatment** for tertiary ailments for seven specialties namely Cardiology, Oncology (Surgery, Chemotherapy and Radiotherapy), Neurosurgery, Urology, Neonatal, Burns, and Poly-trauma. The benefit package covers the entire cost of treatment of the patient from date of admission to his / her discharge from the hospital and follow-up after discharge for a period of one year, including complication that may arise post-surgery. It is through public private partnership to the BPL (Below Poverty Line) people of the state.

## **NEED FOR FOLLOW UP**

In the spot verification exercise undertaken through beneficiary visits, it was revealed that many deaths have occurred due to beneficiaries not undergoing follow up treatments as prescribed. This was mainly due to cost of follow up care, medicines and transportation, which was beyond the means of the BPL beneficiary.

To overcome the above and to sustain the quality of life after the treatment, follow up protocol for ten cardiac procedures has been emphasised by SAST. Upon discharge, patients and their families are advised by the treating hospital to mandatorily avail the benefit of the follow up protocol.

Towards bringing in **QUALITY CARE** and enhancing life to years by strengthening compliance to drug, diet and improving economic productivity of post surgery beneficiaries.

## GOVERNMENT INCENTIVE

To motivate district Government Hospitals to render follow up care services to the beneficiary, GoK has issued a G. O. Providing for incentives to be paid to the designated physician, which is inbuilt in the follow up benefit package amount. Copy of the circular is given in the Annexure.

### **Follow up packages with protocol**

#### Decentralization of Follow up at district level

For the 50 identified follow up packages, priority has been given to the top 10 cardiac procedures as given in the Annexure A (Page no 18).

In cardiac follow up cases, there are four follow up visits by the patient:

The first follow up is mandatorily at the treated Network Hospital.

Subsequent follow ups as prescribed should be provided at the district hospital except certain high risk cases as mentioned in the protocol.

1. **District Level** - Since investigation facilities are available at district hospitals the follow up should be done by a physician at the district hospital.

2. **Medicine** – The above said medicines has to be procured through logistics society and stocked in the pharmacy of the district hospital. Preferably 3 months dosage has to be dispensed to the patient. (To

ensure the availability of these drugs throughout the year in District hospitals by issuing G.O)

3. **Incentive** – Rs 100 per case per follow up upto three follow ups will be paid to the designated physician and the physician should ensure the drugs are dispensed to the patients.

4. The **arogyamithras** incharge of the government hospitals will remind the patients periodically and ensure that they avail followup treatment. Arogyamithras to maintain a separate register for the purpose. Arogyamithras at the hospital has to upload the details of followup activity (Date, Name of the patient, preauth number, Name of the treating physician

5. **ASHAs** will have to motivate the patients and guide them to avail followup facilities

**NOTE**

At the time of discharge, the Network hospital has to issue discharge summary with followup instructions alongwith phone numbers of the treating doctors and field level arogyamithras.

The Network hospitals will also have to upload online the preauth details, diagnosis, treatment / procedure done, discharge summary alongwith the second follow up instructions. The concerned district manager will disseminate the same to the respective arogyamithras for follow up action.

After the patient has availed the follow up treatment, the arogyamitra should obtain signatures of the following persons in the approved format:

- Treating physician
- Pharmacist
- District Surgeon

The completed follow-up pro-forma as per Annexure B (Page no 19), should be submitted to the District Manager, who in-turn will upload online for processing of claim by SAST. All the follow up claims during the given month should be uploaded by 5<sup>th</sup> of the subsequent month for settling of claims.



## I: FOLLOW-UP PROTOCOL FOR PATIENTS AFTER HEART VALVE SURGERY

### A. Follow-up:

- 1<sup>st</sup> Follow-up: 2-4 weeks after hospital discharge at the treating NETWORK HOSPITAL
- Subsequent Follow-up: Every 3 months in the first year and once in 3 months subsequently

### B. Follow-up investigations:

- PT-INR
- Echocardiography: once at 2-4 weeks, then yearly
- Hb%

### C. Medications:

#### 1. Oral anticoagulation:

Oral anticoagulation	Mechanical valve
Warfarin / Acitrom	Life long
Target INR	2-3

2. Tab Ecosprin 75 mg/ Day should be continued for all patients with prosthetic heart valves irrespective of type of valve received.

3. Penicillin prophylaxis: All patients with chronic rheumatic heart disease receiving prosthetic heart valve should receive penicillin prophylaxis once in three weeks at least till age 40 years

(Note if patient is allergic to penicillin alternative medications like oral erythromycin or azithromycin may be considered.)

4. Other adjuvant medications to be considered in cases with indications as appropriate

- a. Digoxin / Diltiazem / Verapamil/Beta Blocker/ Amiodarone
- b. Diuretics: Furosemide +/- Spironolactone

c. Hematinics in patients with anemia

High risk patients and patients with other comorbidities should be followed up at frequent intervals at the discretion of the treating cardiologist

(High Risk Patients: AF, CCF, Bundle branch Blocks, Pulmonary Hypertension, Cardio myopathies, Coagulation disorders, etc)

(Co morbidities: Diabetes, Hypertension, Renal Diseases, Obesity, etc)

## II. FOLLOW-UP PROTOCOL FOR PATIENTS AFTER CABG

### A. FOLLOW UP:

- 1<sup>ST</sup> Follow up: 2 to 4 weeks after hospital discharge by the treating NETWORK HOSPITAL consultant
- SUBSEQUENT FOLLOW UP: Every 3 months in the first year and once in 6 months subsequently

### B. FOLLOW UP INVESTIGATIONS:

- ECG – In each visit
- Echo Cardiography - once a year/whenever clinically indicated
- Lipid profile - Once in 6 months
- Diabetic profile (FBS – PPBS- HBA1C)
- Serum creatinine/Serum electrolytes whenever indicated

### C. MEDICATIONS:

#### 1. ANTI PLATELET MEDICATION

Name of the drug	Duration	Acute coronary syndrome
Tab Ecospirin/Aspirin 150 mg daily	Life long	
Tab Clopidogrel 75 mg daily		For first one year
Oral Statin daily	Life long (to maintain LDL cholesterol <100mg /dl)	

#### 2. BETA BLOCKERS

Metoprolol/bisoprolol/carvedilol/nebivolol

(in titrated doses as per the need of the individual patient/advice by the treated NETWORK HOSPITAL consultant)

#### 3. ACE INHIBITORS/ARBs(Angiotension Receptor Blockers)

Tab. Enalapril/Ramipril/ Lemisatins/Holmisatins

(In titrated doses as per the need of the individual patient/advice by the treated NETWORK HOSPITAL consultant)

4. DIURETICS

Frusemide+/- spironolactone/Torseamide (if clinically indicated)

5. ANTIHYPERTENSIVES

Other antihypertensives (if clinically indicated)

6. ANTIDIABETIC MEDICATIONS

Oral hypoglycaemic Agents/

Insulin as indicated

7. PROTON PUMP INHIBITORS

If associated with gastritis/upper Gastro intestinal bleeding - Rantac

High risk patients and patients with other co-morbidities should be followed up at frequent intervals at the discretion of the treating cardiologist.

**D. COUNSELLING**

Counselling for life style modifications/risk factor modification at each visit

### III. FOLLOW UP PROTOCOL FOR PATIENTS AFTER ANGIOPLASTY

#### A. FOLLOW UP:

- 1<sup>ST</sup> Follow up: 2 to 4 weeks after hospital discharge by the treating Network Hospital consultant
- SUBSEQUENT FOLLOW UP: Every 3 months in the first year and once in 6 months subsequently

#### B. FOLLOW UP INVESTIGATIONS:

- ECG – In each visit
- Echo Cardiography - once a year/whenever clinically indicated
- Lipid profile - Once in a year
- Hb%
- Diabetic profile (FBS – PPBS- HBA1C)
- Serum creatinine/Serum electrolytes whenever indicated
- TMT to be repeated if clinically indicated

#### C. MEDICATIONS:

##### 1. ANTI PLATELET MEDICATION

Name of the drug	Duration	Acute coronary syndrome
Tab Ecospirin/Aspirin 150 mg daily	Life long	
Tab Clopidogrel 75 mg daily		For first one year
Oral Statin daily	Life long (to maintain LDL cholesterol <100mg /dl)	

2. BETA BLOCKERS

Metoprolol/bisoprolol/carvedilol/nebivolol

(In titrated doses as per the need of the individual patient/advice by the treated NETWORK HOSPITAL consultant)

3. ACE INHIBITORS/ARBs(Angiotension Receptor Blockers)

Tab. Enalapril/Ramipril/ Lisinapril/Holmisatins

(In titrated doses as per the need of the individual patient/advice by the treated NETWORK HOSPITAL consultant)

4. DIURETICS

Furosemide+/- spironolactone/Torsemide (if clinically indicated)

5. ANTIHYPERTENSIVES

Other antihypertensives (if clinically indicated)

6. ANTIDIABETIC MEDICATIONS

Oral hypoglycaemic Agents/

Glyburide/Metformin

Insulin as indicated

7. PROTON PUMP INHIBITORS

If associated with gastritis/upper Gastro intestinal bleeding

Rantac

High risk patients and patients with other comorbidities should be followed up at frequent intervals at the discretion of the treating cardiologist

D. COUNSELLING

Counselling for life style modifications/risk factor modification at each visit

## IV: Follow-up protocol of patients after PTMC / BMV

### A. Follow-up:

- 1<sup>st</sup> follow-up visit: After 2-4 weeks at treating Network Hospitals
- Subsequent follow-up : Once in 3-6 months

### B. Follow up investigations:

1. ECG and Echo at 1<sup>st</sup> follow-up ,
2. Hb% whenever clinically indicated
3. Later ECG and Echo to be done once in 6-12 months or when clinically warranted

### C. Medications:

1. Injection Benzathine penicillin 12 Lakhs units deep im once in 3 weeks.  
{If injections not available then oral Pentidz-400(1-0-1)} to continue atleast till 40 years of age
2. Diuretics – adjusted dose according to clinical need
3. Rate control measures (eg. Betablocker/Diltiazem/ Verapamil/Digoxin)
4. Anticoagulation : Warfarin/ Nicoumalone dose adjusted to recommended INR
5. Haematinics in anemia

## V: FOLLOW-UP PROTOCOL OF PATIENTS AFTER ASD/ VSD/ PDA DEVICE CLOSURE

### A. FOLLOW-UP:

- 1st follow-up at 4 weeks at the Network Hospital
- Then every 2 months for 6 months ( In case any complications refer to the treated Network Hospital)

### B. INVESTIGATIONS:

1. Repeat echocardiography at 1st follow-up and later when clinically indicated.
2. Hb% if clinically indicated
2. Chest –X ray when clinically indicated – ALRI, CCF etc.

### C. MEDICATIONS:

1. Antiplatelet medications - Aspirin ± Clopidogrel for 1 month and only Aspirin for 6 months
2. Diuretics and Digoxin whenever clinically indicated (CCF).
3. Haematinics in Iron Deficiency Anemia if Haemoglobin < 10 gms.

**VI: FOLLOW-UP PROTOCOL OF PATIENTS AFTER ASD/  
VSD/ PDA SURGICAL CLOSURE**

**A. FOLLOW-UP:**

- 1<sup>st</sup> follow-up at 2-4 weeks in the treated NETWORK HOSPITAL
- Then at every 3 months for 1<sup>st</sup> year, later at yearly intervals.

**B. INVESTIGATIONS:**

1. Repeat echocardiography at 1<sup>st</sup> follow-up and later when clinically indicated.
2. Hb%
3. Chest –X ray when clinically indicated – ALRI, CCF etc.

**C. MEDICATIONS:**

1. Digoxin, Lasilactone whenever clinically indicated - CCF.
2. Haematinics in Iron Deficiency Anemia if Haemoglobin < 10 gms.

**VII: FOLLOW-UP PROTOCOL OF PATIENTS AFTER  
INTRACARDIAC REPAIR FOR TOF AND OTHER  
CYANOTIC HEART DISEASES**

**A. FOLLOW-UP:**

- 1st follow-up at 2-4 weeks in the treated Network Hospital and 2nd follow-up at 8 weeks in the treated Network Hospital.
- Then at every 3 months for 1st year at District Hospital.

**B. INVESTIGATIONS:**

1. Repeat echocardiography and ECG at 1st follow-up and later when clinically indicated.
2. Chest –X ray when clinically indicated- ALRI, CCF etc.

**C. MEDICATIONS:**

1. Diuretics when ever clinically indicated.
2. Haematinics in Iron Deficiency Anemia if Haemoglobin < 10 gms.
3. ACE inhibitors/Betablocker/ Digoxin if clinically indicated – CCF, Arrhythmias.