



COLLEGE OF PHYSICIANS AND SURGEONS OF MUMBAI

MINIMUM STANDARD REQUIREMENTS (MSR)

Diploma in Transfusion Medicine

College of Physicians and Surgeons of Mumbai

CPS House, Dr. E. Borges Marg, Parel, Mumbai – 400012.

Diploma in Transfusion Medicine (DTM)

1. **Demonstration room:** One demonstration room should be available with overhead projector, LCD and other audio-visual aids.
2. **Library cum seminar room:** Preferably air-conditioned, with a minimum seating capacity of 20 and minimum 80 speciality and reference books and subscription of at-least 2 national and 1 international journal.
3. **Departmental office:**
4. **Accommodation for all faculty:** Separate accommodation/ sitting arrangements for the unit head and assistant faculty.
5. **Accommodation for other departmental staff:** There shall be an air conditioned Blood Bank (150 Sq. mt. Area) and shall include-
 - Registration and Medical Examination Room and selection of donor's room with suitable furniture and facilities.
 - Blood collection room.
 - Room for Laboratory for Blood Group serology;
 - Room for Laboratory for Transmissible diseases like hepatitis, syphilis, Malaria, HIV antibodies etc;
 - Sterilisation and washing room;
 - Refreshment room; and
 - Store and Records room.
 - Blood Component Laboratory with preparation, storage & Q.C. rooms

The equipments, manpower and accessories etc. shall be provided as prescribed in Part XII-B in Schedule F to the Drugs and Cosmetics Rules, 1940 as amended from time to time.

6. **OPD:** SBTC approved, well equipped blood bank in the hospital with all the instruments pertaining to above sections of working. Hospital Transfusion committee should be functional. Registration with Pollution control board is mandatory.
7. **Bed:** Not Applicable

8. Instruments and equipment:

Sr. No.	Instrument	Number
1.	Laboratory benches with cupboards and rack for reagent bottles, water, gas and electric points, etc.	As necessary.
2.	Glassware, test tubes, collection bulbs/tubes	As necessary
3.	Cabinet for 1000 slides	Min. 2
4.	Hot air oven	1
5.	Microscopes, Binocular	Min. 6
6.	Laboratory Counter nine keys clay Adams	6
7.	Slide boxes for 100 slides	10
8.	Electrical Centrifuge	3
9.	Incubator	1
10.	Haemocytometers with red and white pipettes	3
11.	Sahli'shaemoglobinometer/Colorimetric method	3
12.	Pipettes of various sizes	As required
13.	Refrigerators	2
14.	Laminar flow table with Ultra Violet (U.V.) Lamps	1
15.	Venereal Diseases Research Laboratory (V.D.R.L.) shaker	1
16.	ELISA reader with printer, washer and micropipettes.	1
17.	3 part / 5 part differential Haematology cell counter	1
18.	Coagulometer	1
19.	Vortex mixers	1
20.	Biomedical waste system requirements	As required
21.	Refrigerated centrifuge	1
22.	Temperature recorder	As required
23.	Refractometer or Urinometer	1
24.	Blood container weighing device	2
25.	Water Bath	2
26.	Rh view box (wherever necessary)	1
27.	Autoclave	1

28.	Laboratory thermometers	As required
29.	Electronic thermometers	As required
30.	Blood agitator	As required
31.	supplies and reagents	As required
32.	Donor beds, chairs and tables	As required
33.	Bedside table	As required
34.	Sphygmomanometer and Stethoscope	As required
35.	Recovery beds	As required
36.	Weighing devices for donor and blood containers	As required
37.	Sterile lancet and impregnated alcohol swabs	As required
38.	Rubber bulbs for capillary tubings	As required
39.	Capillary tube (1.3x1.4x96 mm or Pasteur pipettes)	As required
40.	Clinical thermometers	3
41.	Watch (fitted with a seconds-hand) and a stop-watch	As required
42.	Disposable PVC blood bags	As per FDA specifications
43.	Emergency equipments/items	As per FDA specifications
44.	Accessories	As per FDA specifications
45.	Stand-by generator	1
46.	Refrigerators	As per FDA specifications
47.	Test tubes of various sizes/micrometer plates (U or V type)	As required
48.	Precipitating tubes 6mmx50mm	As required
49.	Test tube racks of different specifications	As required
50.	Interval timer electric or spring wound	2
51.	Equipment and materials for cleaning glass wares	As required
52.	Insulated containers for transporting blood	As required
53.	Chemical balance (wherever necessary)	1
54.	Standard blood grouping sera Anti A, Anti B and Anti D with known controls	As per FDA specifications
55.	Reagents for serological tests for syphilis	As per FDA specifications
56.	Anti-Human Globulin Serum (Coomb's serum)	As per FDA

		specifications
57.	Bovine Albumin 22 percent Enzyme reagents for incomplete antibodies	As per FDA specifications
58.	ELISA or RPHA test kits for Hepatitis and HIV I & II	As per FDA specifications
59.	Blood bank records, registers, labels	As per FDA specifications
60.	Requirements for blood donation camps	As per FDA specifications
61.	Emergency medical kit	As per FDA specifications
62.	Dielectric sealer or portable sealer	2
63.	Needle destroyer	3
64.	Plasma expresser	2
65.	Clipper and clips and or dielectric sealer	As required
66.	Weighing device	2
67.	Dry rubber balancing material	As required
68.	Platelet agitator with incubator	1
69.	Deep freezers -40°C, -80°C	As per FDA specifications
70.	Refrigerated Water bath for Plasma Thawing	1
71.	Apheresis equipments	1

9. Teaching faculty:

Each unit should consist of following faculty

- a. Main faculty: A “Unit Head” / “Main faculty (Guide)” must have at least six years of professional standing after acquiring the post-graduate qualification like MD/MS/DNB/FCPS in concerned speciality.

For Government Institutions/Hospitals owned by local bodies [e.g. corporation] faculty on contractual basis is allowed, provided that he/she shall be on full time basis to the affiliated institute. (Supportive documents should confirm the full time status of faculty)

- b. Assistant faculty: An “Assistant faculty” shall have at least four years of professional standing after acquiring the post-graduate qualification like MD/MS/DNB/FCPS in concerned speciality. For Government Institutions/Hospitals owned by local bodies [e.g. corporation] faculty on

contractual basis is allowed, provided that he/she shall be on full time basis to the affiliated institute. (Supportive documents should confirm the full time status of faculty)

- c. Visiting faculty (Desirable): A “Visiting faculty” should be from the same or Allied speciality, preferably having a clinical experience of at least four years.

For Government Institutions/Hospitals owned by local bodies [e.g. corporation] faculty on contractual basis is allowed, provided that he/she should visit the institution at least two times in a week for two hours and also be available to provide his services to the institutions as and when required.

There is no retirement age for faculty provided that he/she should be mentally and physically fit to perform the duties and responsibilities as per the post/position given by affiliated institution.

10. Clinical material:

1. Blood bank – Minimum 30 issues per day
2. Component laboratory – Minimum 4 component preparation license
3. Apheresis – Minimum 2 cases per day
4. Serology – Minimum 4 ELISA runs per week (for TTD) with facilities of determination of rare blood groups and atypical antibodies