

TORINO NEW TEACHING AND RESEARCH HOSPITAL (TRH)

Hospital Functional Organisation

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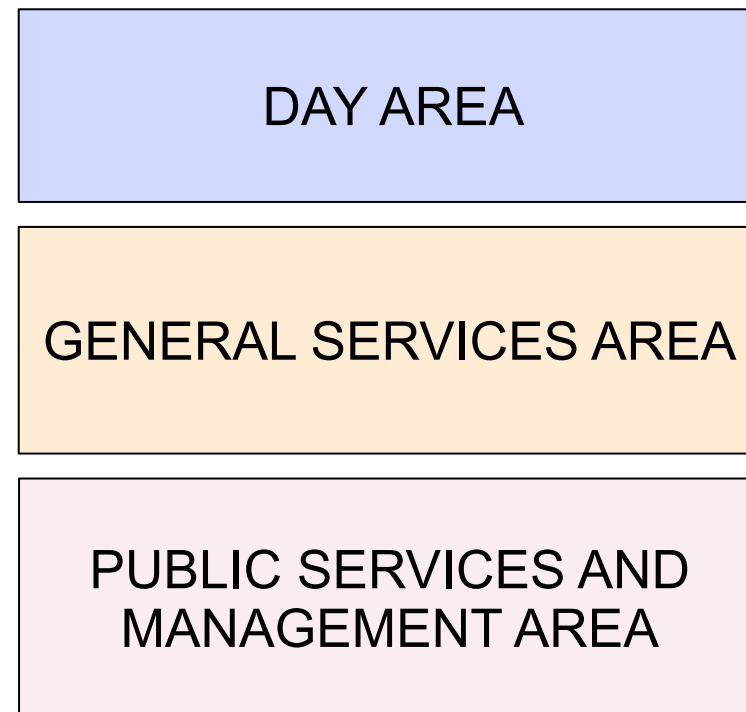
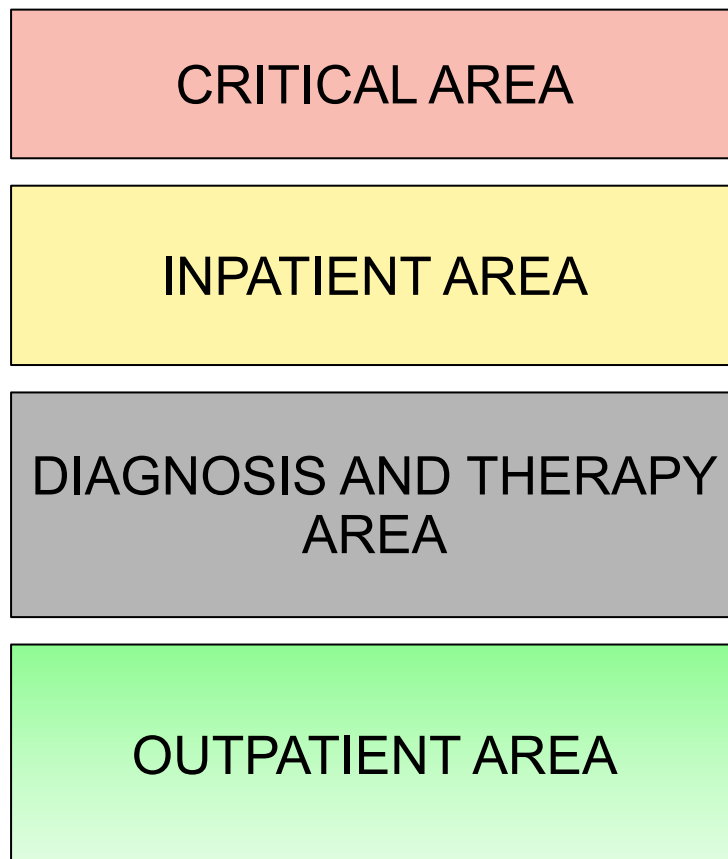
WORKBOOK – FUNCTIONAL ORGANISATION: STRUCTURAL DESCRIPTION

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↙ *Building Program to be defined for each «functional area»*

DEFINITION OF FUNCTIONAL LAY-OUT



SCIENTIFIC, CLINICAL AND PRE-CLINICAL EXCELLENCES

Levels	SqM
1st level	27,500
2nd level	23,000
3rd level	22,000
4th level	19,000
5th level	18,000
6th level	17,500
TOTALE	127.000

2nd level A&E

*Inpatient beds:
1,040 (of which
70 observation beds)*

General organisational criteria for lay-out definition:

- ✓ Flexible structure and installation;
- ✓ Accessibility;
- ✓ Differentiation between external and internal users; procurement, canteen, etc.

BUILDING PROGRAM – 1

ORGANISATION – BEDS - SURFACE

CATEGORIES	FUNCTIONAL AREAS	BEDS	GROSS SURFACE*
Critical Category (High care and Emergency)	Intensive care and subintensive care	60	5,500
	Intensive and subintensive surgical care	40	
	Department supports	-	800
	Emergency with 4 Operating theaters + Short-stay observation	24	6,000
TOTAL CRITICAL CATEGORY WITH FIRST LEVEL INPATIENT		100 + 24 observation beds	12,300
Second level Acute Category	Surgical area		
	Ordinary inpatient (Including Gynaecology)	290	
	Ordinary inpatient – Orthopaedics and traumatology	44	
	Department supports	-	
	Total surgical area	334	
	Medical area		
	Ordinary inpatient	135	
	Ordinary inpatient with dialysis area	26	
	Specialised medical inpatient for infective illnesses	25	
	Haematology specialised medical inpatient	25	
	Oncology specialised medical inpatient	25	
	Department Supports	-	
	Total medical area	236	
	Total Surgical and medical areas	570	30,000
	Women & Children area		
	Obstetrics inpatient	50	
	Pediatrics inpatient + DH/DS + Outpatients	90	
	Women Outpatient	-	
	Area for Medically Assisted Reproductive Technologies	-	
	Maternity area	-	
	Neonatal pathology with intensive care	50	
	Nursery	-	
	Milk bank	-	
	Department supports	-	
	Total Women-Children areas	190	12,500
TOTAL SECOND LEVEL ACUTE CATEGORY		760	42,500

BUILDING PROGRAM – 2

CATEGORIES	FUNCTIONAL AREAS	ORGANISATION and BEDS	GROSS SURF.*
Diagnostics category	Surgical Area and Interventional Radiology	24 rooms	6,500
	Medical Imaging	16 XR + 16 ECHO + 5 NMR + 7 CT + 2 mammography	5,100
	Nuclear Medicine	4 gamma rays + 2 PET-CT + 1 Cyclotron	1,500
	Radiotherapy	7 accelerators	4,000
	Labs		2,000
	Blood test centre		500
	Department supports		900
TOTAL DIAGNOSTIC AND HIGH-TECHNOLOGY SERVICES			20,500
Outpatient and day category	General and Specialised Outpatients	250	9,500
	Pre-hospital Care	25 Specialised outpatients +12 observation beds	1,000
	Transfusion Centre	8 beds	500
	Blood Bank		300
	Functional and endoscopic tests	Module with 7 rooms and 2 outpatients	900
	Dialysis	4 rooms with 6 beds + 2 single beds	1,000
	Functional recovery and rehab		1,800
	Total Outpatient Area	46 observation beds	15,000
	Day Surgery Inpatient	1 module with 28 beds + 1 module with 27 beds	3,000
	Day Operating Theaters	6 daytime operating theaters + 4 rooms for small operations	1,500
	Day Hospital	1 module with 28 beds + 1 module with 27 beds	3,000
	Total Daytime Area	110 beds	7,500
TOTAL OUTPATIENT AND DAY CATEGORY			22,500

BUILDING PROGRAM – 3

CATEGORIES	FUNCTIONAL AREAS	GROSS SURFACE*
Public Services & Management Area Category	Reception and Welcome Area	
	Ancillary and Comfort Services	
	Total Reception / Welcome	3,000
	Front registration desk	
	Management Offices	
	Conference Room and Support Services	
	Total Support and Management Administrative Services	3,000
TOTAL PUBLIC AND MANAGEMENT SERVICES		6,000
General Services Category	Sterilisation Central Unit	1,000
	Disinfection and Cart Washing Central Unit	900
	Hospital Pharmacy , storage area + 24h-Pharmacy	2,000
	Morgue and Dissection Rooms	1,500
	Catering+ Cafeteria	3,000
	Laundry / Wardrobe Service	800
	Religious Services	500
	Central Changing Rooms	2,000
	Nursery	500
	Maintenance workshop	100
	Warehouses	500
	Archives	400
TOTAL GENERAL SERVICES CATEGORY		13,200
Central Units and Substations		5,000
TOTAL HOSPITAL GROSS SURFACE		122,000
TOTAL CLINICAL TRAINING		5,000
TOTAL OVERALL GROSS SURFACE		127,000
* Gross Surface includes connecting areas and construction works		
Waste recycling point, Heliport and Garage are not included in the surface		

SOME EXAMPLES

FUNCTIONAL AREA	ORGANISATION	BEDS
Critical Area		
Intensive and Sub-Intensive care	4 modules with 15 beds	60
	4 modules with 10 beds	40
Emergency with 4 Operating Theaters and Short-stay Observation	Structured as follows: - Adults Emergency - Obstetrics Emergency - Child Emergency	24 beds in Short-stay Observation
Total beds in Critical Area		124

- ❖ 130,000 accesses per year are estimated for Emergency; 24 observation beds are estimated in the Short-stay Observation;
- ❖ The Emergency Area shall grant easy access to walking and non-walking patients, as well emergency vehicles;
- ❖ Emergency includes also the Obstetric Emergency area and the Paediatric Emergency area – located in a common mother-child area but with dedicated sections.
- ❖ The whole area shall be equipped with suitable horizontal and vertical pathways according to their functions.

SOME EXAMPLES OF INPATIENT AREAS

FUNCTIONAL AREA	ORGANISATION	BEDS
Surgical Area		
Ordinary Inpatient (including gynaecology)	11 modules with 24 beds (2 with 1 bed + 11 with 2 beds) and 1 module with 26 beds (4 with 1 bed + 11 with 2 beds)	290
Ordinary orthopaedics and traumatology Inpatient	2 modules with 22 beds	44
Department Supports	Maximal number per shift: 25 per module (including students)	
Total Surgical Area		334
Medical Area		
Ordinary Inpatient	1 psychiatry module with 15 beds and 5 modules with 24 beds (2 with 1 bed + 11 with 2 beds)	135
Ordinary Inpatient with dialysis area	1 module with 26 beds	26
Specialised medical inpatient for infective illnesses	1 module with 25 beds	25
Hematology Specialised medical inpatient	1 module with 25 beds	25
Oncology Specialised medical inpatient	1 module with da 25 beds	25
Department Supports	Staff tailoring Maximal Number per shift: 25 per module (including students)	
Total Medical Area		236
Total Sugical and Medical Area	24 modules	570

BUILDING PROGRAM EXTRACT

BUILDING PROGRAM		
Functional Area: Oncology Specialised medical inpatient		
Room Unity	Nr	Quantification criteria
Regular Module with 25 beds		
Inpatient Rooms		
Room with 2 beds and toilet	8	8 each module
Room with 1 bed and toilet	5	5 each module
Room with 2 beds and toilet	2	2 each module
Health Supports		
Inpatient / examination room	2	2 each regular module
Head-nurse room	1	1 each regular module
Nurse working room	1	1 each regular module
Doctor working room	1	1 each regular module
Secretary / registration room	1	1 each regular module
Hospitality Supports		
Sitting room	1	1 each regular module
Doctor / family conversation room	1	1 each regular module
Staff catering / relax room	1	1 each regular module
Visitors' waiting room	1	1 each regular module
Service Supports		
Storage room – clean equipment	1	1 each regular module
Equipment Storage room	1	1 each regular module
Room with sink , flusher disinfectant, used equipment	1	1 each regular module
Room for medicaments and medical devices	1	1 each regular module
Little Kitchen	1	1 each regular module
Assisted bathroom	1	1 each regular module
Staff toilets (ladies/gents)	2	2 each regular module
Visitors' toilets (ladies/gents/disabled)	2	2 each regular module
Corpse room	1	to be centralised at floor
Area Gross Surface 1,500 sqm		

❖ *Characterising rooms for each ward*

❖ *Multimodules common rooms, ex. Corpse Room*

Department supports: specific functional area for each Department with rooms and spaces in common with several sectors both for staff and visitors' welcome area.

SOME EXAMPLES – DIAGNOSIS AND CARE AREA

FUNCTIONAL AREAS	ORGANISATION	ROOMS
Diagnosis and Care		
Ordinary operating area + emergency-urgency	10 ordinary rooms + 8 emergency-urgency rooms	18
Interventional Radiology	2 haemodynamics + 2 ECG + 2 angiographies	6
Medical Imaging	16 X-Rays + 16 ECHO + 5 NMR + 7 CT + 2 mammographies	46
Nuclear Medicine	4 gamma rays + 2 PET-CT + 1 cyclotron	7
Radiotherapy	7 accelerators	7
Labs	<ul style="list-style-type: none"> - Clinical Biochemistry - Immuno-transfusional service - Immunogenetics, transplantation biology - Microbiology and Virology - Anatomy and Patological Hystology - Medical Genetics 	

Operating Theater Equipment:

- Multifunctional Operating Area (as in the table)
- Day Operating area (Day Surgery and Ambulatory Surgery), not in the table

SOME EXAMPLES- SERVICES AREA

General Services Area
Sterilisation Central Unit
Bed disinfection + Cart washing Unit
Pharmacy Service: Hospital Pharmacy and Storage area– 24h Pharmacy
Morgue - Dissection rooms
Kitchen
Catering service and Cafeteria
Laundry Service
Religious Services
Central Changing Rooms
Nursery
Warehouses
Archives
Waste recycling point
Heliport
Garage
Parking

Public Services Area
Reception and Welcome Area
Ancillary and Comfort Services
Management Area
Management / Administrative Offices and Reservation Centre
Conference Room and Support Services

- The Public Services Area is one of the most qualifying and distinctive hospital areas right from the first patient's approach. It shall be easy to identify and accessible. It shall deliver quick information.
- The Management Area includes the Hospital Management offices, the Technical Area offices, as well as the Administrative offices, the Reservation Centre and the Conference Room.



Thank you for your attention!