



IMA NHB TAMILNADU

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HOSPITAL COSTING STUDY REPORT – 2018



**SCIENTIFICALLY DERIVED
RESULT**



**INDIAN MEDICAL ASSOCIATION
TAMIL NADU STATE BRANCH
NURSING HOME BOARD**

(Registered under the Societies Act, 1860XX No. 325/1934)



Dr. J.A. Jayalal
State President
IMA TNSB

Dr. B. Sridhar
Hony.State Secretary
IMA TNSB

Dr. S. Palanivelrajan
State Finance Secretary
IMA TNSB

**SUSTAINABILITY OF SMALLER AND MEDIUM HOSPITAL AT STAKE –
IMA NHB TAMIL NADU HOSPITAL COSTING STUDY REPORT**

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“Quality Health Care” at Competitive Pricing is the order of the day. Quality cannot be obtained without a Cost. How much the cost must be is the question for both the patients who receive the health care and also the Hospital who provide it. Patients, Health Insurance Companies, Govt Health Scheme implementers, feel that the cost they pay for the Health care provided is more. Whereas the providers feel that what they charge is much less.

Indian Medical Association Nursing Home Board (IMA NHB) of Tamil Nadu felt that to clear the disparity, and to make the public and others to know and to find out the actual cost incurred in providing a Quality Health Care A scientific Hospital costing study is a must . The proposal to do the study was proposed and passed in the 294th State council meeting held at Cuddalore on March 18th 2018. Dr. A. K. Ravikumar the chairman of the Insurance Standing Committee was given the responsibility to do the Study.

Under the chairmanship of Dr. A. K. Ravikumar a Hospital costing Committee was formed and the first Brain storming meeting was held at Coimbatore IMA. Costing Accountant Mr. T. Saravanan M.Com, ACA, Grad CWA was appointed as the Technical Advisor and Dr. K. S. Ramalingam, Dr. P. Sundaraj, Dr. Karthick Prabhu, Dr. N. S. Kumaresan, Dr. Prabahar, Dr. Senthil Ram, Dr. Chandrakala, Dr. Sanjeevramasamy, Dr. Nirmalfredric, Dr. Thangavelu, Mrs. Lallujoseph, Dr. Satish Devadoss, Dr. Loganathan, Mr. Prabhat etc Volunteered to be the Committee members.

After series of discussions it was decided to do the costing prospectively based on the Standards laid down for a Hospital. The following standards were used to derive at the costing components.

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- ❖ **CLINICAL ESTABLISHMENT ACT CEA 003 (CENTRAL ACT) STANDARDS**
- ❖ **IPHS (INDIAN PUBLIC HEALTH STANDARDS) REF GUIDELINES FOR SUB DIST/ SUB DIVISIONAL HOSPITALS**
- ❖ **MINIMUM WAGES ACT GO (2D) NO. 24 DATED 02.03.2018 – GOVT. OF TAMIL NADU**
- ❖ **IPSG – INTERNATIONAL PATIENT SAFETY GOAL**
- ❖ **IRDA NORMS FOR BILLING**
- ❖ **CLINICAL PATHWAY FROM ASSOCIATIONS FOR PACKAGE RATES**

These are various components under which costing was worked out

- **ACCOMMODATION COST**
- **EMPLOYEE COST**
- **ADMINISTRATIVE COST**
- **COMMONLY USED WARD EQUIPMENT**
- **ICU ACCOMMODATION**
- **ICU COMMON EQUIPMENTS**
- **OT ACCOMMODATION**
- **OT COMMON EQUIPMENTS**
- **OT SPECIAL EQUIPMENTS**
- **CONSUMABLES, MEDICINES AND IMPLANTS**
- **INVESTIGATIONS**
- **PROFESSIONAL FEES**



The result revealed the following facts.

ACCOMMODATION COST:

1.	Floor areas as the CEA 003 (central act) Standards Annex 1-page 15	
2.	Value as per Average Rental Value Rs 60 per Sqrft in a semi urban area	
	Rs. 2036 / Bed Day at 50 % Occupancy	

EMPLOYEE COST:

1.	No. of Employees as per IPHS (Indian Public health Standards) Ref Guidelines for sub dist/ sub divisional Hospitals Page 25	
2.	Pay as per Minimum Wages Act GO (2d) No. 24 Dated 02.03.2018 – Govt. of Tamil Nadu	
	Rs. 2,212 / Bed Day at 50 % Occupancy	

ADMINISTRATIVE COST:

1.	For all Statutory Licenses / Taxes etc.	
	Rs. 1702 / Bed Day at 50 % Occupancy	



COMMONLY USED EQUIPMENT AND FURNITURE FOR WARD (OTHER THAN OT/ICU/OTHER SPECIAL EQUIPMENT) as per the CEA 003 (central act) Standards Annex 3-page 21-26

1.	Usage Cost	Rs. 214 / Bed Day
2.	Maintenance Cost	Rs. 32 / Bed Day
	Total	Rs. 246/ Bed Day

OT ACCOMMODATION:

1.	Floor Area as per CEA 003 (Central act) Standards Annex 1 page15	
2.	Usage 6 Hours a day	
3.	Value per Hour usage of Theatre	
		Rs. 191 / Per Hour

OT COMMON EQUIPMENTS: as per the CEA 003 (central act) Standards Annex 3-page 21-26

1.	As per CEA - 003 (Central Act) Standards	
2.	Usage Cost	Rs. 1182 / Per Hour
3.	Maintenance Cost	Rs. 111 / Per Hour
	Total	Rs. 1293/ Per Hour



OT SPECIAL EQUIPMENTS

As per Case Usage cost

**ICU ACCOMMODATION: Floor areas as the CEA 003 (central act)
Standards Annex 1-page 15**

1.	Floor Area As per CEA (Central Act) Standards	
2.	Value calculated per bed Day @50% usage	Rs. 1175 / Per Bed Day
	Total	Rs. 1175/Per bed day

**ICU COMMON EQUIPMENTS: as per the CEA 003 (central act)
Standards Annex 3-page 21-26**

1.	As per CEA (Central Act) Standards	
2.	Value per bed day @ 50% usage	
3.	Usage Cost	Rs. 3877/ Per Day
4.	Maintenance Cost	Rs. 390 / Per Day
	Total	Rs. 4267/ Per Bed Day

ICU SPECIAL EQUIPMENTS AS PER EQUIPMENT USED

As per Equipment Used

MEDICINES & CONSUMABLES

As per Case.



IMPLANTS

As per case.

INVESTIGATIONS:

Basic Investigations for all cases

1	CBC	200
2	Blood Grouping & Rh Type	100
3	BT, CT	50
4	Urine Complete	100
5	Random Blood Sugar	40
6	Urea	100
7	Creatinine	100
8	HIV I II	250
9	HBs Ag	250
10	HCV	200
11	ECG	120
12	X RAY CHEST	300
	TOTAL	1810



Special Investigations as per case

DOCTOR & SPECIAL TECHNICIANS FEES

1	SURGEON		
2	ANAESTHETIST		
3	ASSISTANT SURGEON		
4	SPECIAL TECHNICIAN		
5	CONSULTANT FEES		
	TOTAL		

HOSPITAL PROFIT MARGIN: not added

A 50 bedded Hospital with 50% occupancy should charge

Rs. 2036 as General ward bed charges per day,

Rs. 2212 as employees cost,

Rs. 246 as Equipments charge including maintenance charge.

Rs. 1702 as Administrative charges to recover the cost that too cost to cost.

Rs. 2876 as ICU Bed charge

Rs. 4267 ICU Equipments Charge including maintenance charge.

A total of Rs. 6196 a day for a GENERAL WARD BED.

A total of Rs. 11057 a day for an ICU without special equipments charges.



BASED ON THE CLINICAL PATHWAY LAID DOWN BY VARIOUS SPECIALITY ASSOCIATIONS THE PACKAGES WERE DERIVED FOR COMMON PROCEDURES FOR WHICH

- 1. DRUGS, CONSUMABLES, AND IMPLANTS WERE CHARGED AS PER THE PURCHASE PRICE AND NOT MRP.**
- 2. LAB CHARGES WERE DERIVED THE AVERAGE OF MEDIUM SIZED LABS**
- 3. PROFESSIONAL CHARGES CALCULATED AS PER THE AVERAGE WORKED OUT FROM DATA COMPILED FROM 250 HOSPITALS ACROSS THE STATE. [See the enclosed PDF for various packages](#)**

The study was **validated by the various Speciality Association office bearers and representatives** in a meeting conducted at Coimbatore on **17th July 2018**

Actually most of the smaller and medium hospitals charge lesser than what the study shows. How then Hospitals give effective care with lesser charge than the study report?

Health care professional over work- 12 to 14 hours a day 365 days a year against the Government norms of 8 hours a day and 200 days an year with all other benefits.

The Hospital owner doesn't delink himself from the Hospital and he doesn't bother to charge for his service.

The income from Hospital is being ploughed back into Hospital for the sake of providing quality without portioning out for any crisis and retirement benefits of Hospital owners.

In Such scenario if the National Health Scheme Ayushman Bharat, State Health schemes, Insurance companies etc. wants the Hospitals to do cases for very low packages like **LSCS for Rs.9000/- Lap Appendicectomy for Rs.10000 will be practically unsustainable and will lead to Quality compromise.** More than that the Ayushman Bharat Scheme covers almost nearly 45% of the total population who are the sole beneficiary of smaller and medium Hospitals and



provide care for more than 1300 common diseases They are left with no paying patients to subsidize for low package.

Due to competition smaller and medium hospitals are forced to undercut on their charges for Regular patients, Private Insurance Companies etc., which is not a Healthy sign as per the advice of the costing accountant who spells out that under cutting will push the institution to debt trap in long run. Probably this is the reason why many small and medium hospitals get closed in Andhra, Kerala and also in Tamil Nadu

Thanks to our state president **Dr. J. A. Jayalal**, State council for allowing us to do this scientific costing study. **Special thanks to Costing committee members** under the chairmanship of **Dr. A. K. Ravikumar** especially **Dr. Prabhakar, Ex MP Dr. Senthil Ram, Dr. N. S. Kumaresan, Dr. Sundarrajan, 250 Hospitals and all specialty associations** who shared their time and data.



INDIAN MEDICAL ASSOCIATION NURSING HOME BOARD TAMILNADU - COSTING TEMPLATE - 2018

Master Cost sheet for a Medical package:

Description of The Package (As Per Standard description)

APPENDICECTOMY LAP

Consultation time (in Hrs.)	1		
OT time (in Hrs.)	4		
ICU Days (in Days.)	1		
Total No of Days Stay in (Hospital) Ward (Days)	3		
Category of Hospital (50 / 100 / 150)	50		
Details of cost elements		Schedule No.	Amount Rs. / Pack
1. Pharmacy cost		1	4,092
2. Consumables cost		2	270
3. Implants cost		3	-
4. Investigation cost (with details)		4	4,380
5. Doctors and nurses fees (with details)		5	18,300
6. Other employee costs		6	8,849
7. Accommodation costs		7	8,049
8. Medical equipments usage costs		8	11,406
9. Maintenance cost of above		9	1,147
Total Direct costs (sum of all above)			56,493
10. Administrative costs		10	6,807
Total cost for the package			63,300

**Sch - 1****Pharmacy Cost :**

Particulars		Value
Anesthesia (SPI / EPI / GEN / BLO)		
GEN		2,173
Other Pharmacy Cost :		
As per List (Incl Stock Holding Cost)		1,918
Total		4,092

Sch - 2**Consumable Cost :**

Particulars		Value
Cost of Consumables :		
As per List (Incl Stock Holding Cost)		270
Total		270

Sch - 3**Implants Cost :**

Particulars		Value
Cost of Implants :		
As per List (Incl Stock Holding Cost)		-
Total		-

Sch - 4**Investigation Cost :**

Particulars		Value
Cost of Investigations :		
As per List		4,380
Total		4,380



Sch - 5

Doctors & Technician's Fees :

Sl.No	Particulars	Value
Consulting Doctor's Fees :		
	Consultation Time (in Hrs.)	1
	Rate Per Hour	300
	Total	300
Operation Theatre		
	Anaesthetist	5,000
	Surgeon	10,000
	Assisting Doctor	3,000
	Total	18,000
	Total	18,300

Sch - 6

Other Employee Cost :

Sl.No	Particulars	Value
	Category of Hospital (Beds)	50
	No of Days stay - (Ward + ICU)	4
	Cost per Day	2,212
	Total Employee Cost	8,849

Sch - 7

Accommodation Cost

Sl.No	Particulars	Value
OT		
	No of Hours	4
	Rate per Hour	191
	Total	765
ICU		
	No of Days	1
	Rate per Day	1,175
	Total	1,175
Ward Rent + Common Area		
	No of Days stay	3
	Cost per Day	2,036
	Total	6,109
	Total	8,049

**Sch - 8****Medical Equipment Usage Cost : (as per Standard fittings)**

Sl.No	Particulars	Value
	Category of Hospital (Beds)	50
	Common Equipments :	
	No of Days stay	3
	Ward Room	348,050
	Causalty	-
	Labour Ward	-
	IP Ward	140,835
	Common Assets & Equipments :	1,435,000
	Cost per Day	214
	Total Cost	641
	OT	
	No of Hours	4
	OT Common Equipment Usage / PH	1,182
	OT Special Equipment Usage / PH	540
	Total Cost	6,888
	ICU	
	No of Days stay	1
	ICU Common Equipment Usage / day	3,877
	ICU Special Equipment Usage / day	-
	Total	3,877
	Total	11,406

**Sch - 9****Medical Equipment Maintenance Cost : (as per Case Specific fittings)**

Sl.No	Particulars	Value
	Category of Hospital (Beds)	50
	Common Equipments :	
	No of Days stay	3
	Ward Room	66,910
	Causalty	-
	Labour Ward	-
	IP Ward	13,929
	Common Assets & Equipments :	204,400
	Cost per Day	32
	Total	95
	OT	
	No of Hours	4
	OT Common Equipment Usage / PH	111
	OT Special Equipment Usage / PH	54
	Total	662
	ICU	
	No of Days stay	1
	ICU Common Equipment Usage / day	390
	ICU Special Equipment Usage / day	-
	Total	390
	Total	1,147

Sch - 10**Administrative Cost :**

Sl.No	Particulars	Value
	Category of Hospital (Beds)	50
	No of Days stay - (Ward + ICU)	4
	Cost per Day	1,702
	Total	6,807



IMA NHB TAMIL NADU SCIENTIFIC HOSPITAL COSTING STUDY REPORT



Room & Nursing Charges Includes + (Charges comes under IRDA Billing Format Schedule IV – B 100000)	Accommodation charges Administrative cost RMO + Duty MO + Employee cost Commonly used equipment <p style="text-align: right;">Total</p>	Rs. 2036 / Day Rs. 1702 / Day Rs. 2212 / Day Rs. 246 / Day Rs. 6196 / Day
ICU Charges Includes + (Charges comes under IRDA Billing Format Schedule IV – B 200000)	ICU Accommodation charges Common Equipments charges Administrative cost RMO + Duty MO + Employee cost Special Equipments as per required <p style="text-align: right;">Total</p>	Rs. 2876 / Day Rs. 4267 / Day Rs. 1702 / Day Rs. 2212 / Day Will be added Rs. 11057 / Day
OT Charges Includes + (Charges comes under IRDA Billing Format Schedule IV – B 300000)	OT Accommodation charges Common Equipments charges Instruments charges Implants cost OT Consumables Special Equipments as per required <p style="text-align: right;">Total</p>	Rs. 191 / Hour Rs. 1293 / Hour Will be added Will be added Will be added Will be added Rs. 1484 / Hour
Medicines and Consumables + (Charges comes under IRDA Billing Format Schedule IV – B 400000)	Pharmacy cost Consumables	Will be added Will be added
Professional Fees + (Charges comes under IRDA Billing Format Schedule IV – B 500000)	Surgeon Fees Anaesthetist fees Assisting charges Technician charges	Will be added Will be added Will be added Will be added
Investigations + (Charges comes under IRDA Billing Format Schedule IV – B 600000)	Basic Lab Investigations Special Investigations	Will be added Will be added
Miscellaneous Charges + (Charges comes under IRDA Billing Format Schedule IV – B 800000)	Admission Fees Documents charges MRD Charges Registration Fees Biomedical Waste Management Charges	Will be added Will be added Will be added Will be added Will be added Will be added
<ul style="list-style-type: none"> • Will be added – As per your Hospital charges, Equipment cost, Services offered Etc. • Oxygen Charges Rs. 150/ Hour for all Patient care area – [General ward / Room / ICU] – if applicable 		



IMA NHB TNSB Package Rates FOR VARIOUS PROCEDURES Scientifically worked out as per standards - 2018

Sno	Procedure Name	Speciality	Scientific Cost
1	Pterygium + ConjunctivalAutograft	OPHTHAL	11,929.00
2	Cataract with foldable hydrophobic acrylic IOL by Phaco emulsification tech	OPHTHAL	39,098.00
3	Cataract with non-foldable IOL using SICS technique	OPHTHAL	32,354.00
4	Cataract with foldable hydrophobic acrylic IOL by Phaco emulsification tech + Glaucoma	OPHTHAL	52,122.00
5	Cataract with foldable hydrophobic acrylic IOL by Phaco emulsification tech + Glaucoma	OPHTHAL	45,144.00
6	Tympanoplasty	ENT	53,118.00
7	Mastoidectomy	ENT	56,319.00
8	Mastoidectomy cortical modified/ radical	ENT	60,422.00
9	Mastoidectomy with tympanoplasty	ENT	58,064.00
10	Stapedectomy	ENT	56,442.00
11	Ear lobe repair - single (daycare)	ENT	12,377.00
12	Removal of foreign body from ear	ENT	4,491.00
13	Septoplasty + FESS	ENT	60,063.00
14	Breast Lump - Left – Excision	GEN SUR	46,948.00
15	Hydrocele	GEN SUR	43,090.00
16	Fissurectomy	GEN SUR	50,452.00
17	Haemorrhoidectomy	GEN SUR	50,452.00
18	Hernia – Incisional	GEN SUR	84,559.00
19	APPENDICECTOMY LAP	GEN SUR	63,300.00
20	Laparoscopic Cholecystectomy	GEN SUR	86,813.00
21	HERNIA - INGUINAL - LAPAROSCOPIC UNILATERAL	GEN SUR	97,054.00
22	HERNIA - INGUINAL	GEN SUR	70,480.00
23	Thyroidectomy	GEN SUR	81,667.00



24	CESAREAN	OBS GYN	90,991.00
25	LAVH	OBS GYN	84,886.00
26	OPEN HYSTERECTOMY	OBS GYN	82,867.00
27	Amputation – one or more fingers	ORTHO	38,669.00
28	Amputation – one or more Toes	ORTHO	38,669.00
29	Amputation – Above Knee	ORTHO	95,444.00
30	Amputation – Below Knee	ORTHO	80,538.00
31	Bimalleolar Fracture Fixation	ORTHO	95,929.00
32	Closed Interlock Nailing + Bone Grafting – femur	ORTHO	113,502.00
33	Closed intra medullary Nailing femur	ORTHO	113,502.00
34	Closed Interlocking Tibia + Orif of Fracture Fixation	ORTHO	104,972.00
35	Closed Reduction and Internal Fixation with K wire	ORTHO	55,768.00
36	Closed reduction of dislocation (Shoulder/ Elbow)	ORTHO	35,388.00
37	Fracture - Hip Internal Fixation (Intertrochanteric Fracture with implant) + rehabilitation	ORTHO	104,976.00
38	Fracture - Humerus Internal Fixation	ORTHO	100,000.00
39	Fracture - Radius Internal Fixation	ORTHO	70,384.00
40	Fracture - TIBIA Internal Fixation plating	ORTHO	83,704.00
41	TOTAL KNEE REPLACEMENT	ORTHO	186,215.00
42	Arthroscopic surgery - ACL Reconstruction / Repair - Excluding cost of implant	ORTHO	103,316.00
43	Nephrectomy (Benign) Open	UROLOGY	88,026.00
44	Open PYELOPLASTY	UROLOGY	89,824.00
45	PYLOPLASTY Laparoscopic	UROLOGY	94,533.00
46	Nephrectomy (Benign) Laparoscopic	UROLOGY	92,775.00



47	Nephrectomy-Partial or Hemi, Open	UROLOGY	119,739.00
48	Orchiectomy-High inguinal	UROLOGY	43,846.00
49	A.V.FISTULA	UROLOGY	55,231.00
50	BUCCAL URETHROPLASTY	UROLOGY	97,484.00
51	CYSTOLITHOTRIPSY	UROLOGY	38,105.00
52	HEMODIALYSIS-INITIATE	UROLOGY	89,654.00
53	HEMODIALYSIS-MAINTENANCE	UROLOGY	3,822.00
54	PCNL	UROLOGY	82,645.00
55	RENAL BIOPSY	UROLOGY	45,939.00
56	RIRS	UROLOGY	145,745.00
57	TURBT	UROLOGY	70,993.00
58	TURP	UROLOGY	66,235.00
59	URSL	UROLOGY	69,133.00