

**Internship Training
At
Wockhardt Hospitals(Rajkot)
Housekeeping Staff Utilization
By
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Post Graduate Diploma In Hospital And Health Management
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Wockhardt Hospitals

- Wockhardt hospitals are one of the leading tertiary cares, super specialty healthcare networks in India offering high quality healthcare services.
- Wockhardt hospitals, originally called First hospitals and Heart Institute, were one of the early movers among corporate health-care chains in India.
- The company was established in 1989 and it started its first operations with a medical centre in Kolkata, 1989 and a heart hospital in Bangalore two years later. Wockhardt Hospitals currently runs 7 hospitals located at Goa, Nagpur (I & II), Nashik, Rajkot, Surat and Vashi. Wockhardt would initiate its presence in South Mumbai with a new hospital in 2014.

N M Virani Wockhardt Hospital, Rajkot



Wockhardt hospitals Rajkot is a 170 bedded multi speciality hospital with a housekeeping strength of 145 staffs working at 41 different areas and departments

Wockhardt Hospitals

AIM OF THE STUDY: TO ANALYSE THE UTILIZATION OF HOUSE KEEPING STAFFS IN N.M VIRANI WOCKHARDT HOSPITALS (RAJKOT)

OBJECTIVE OF STUDY:

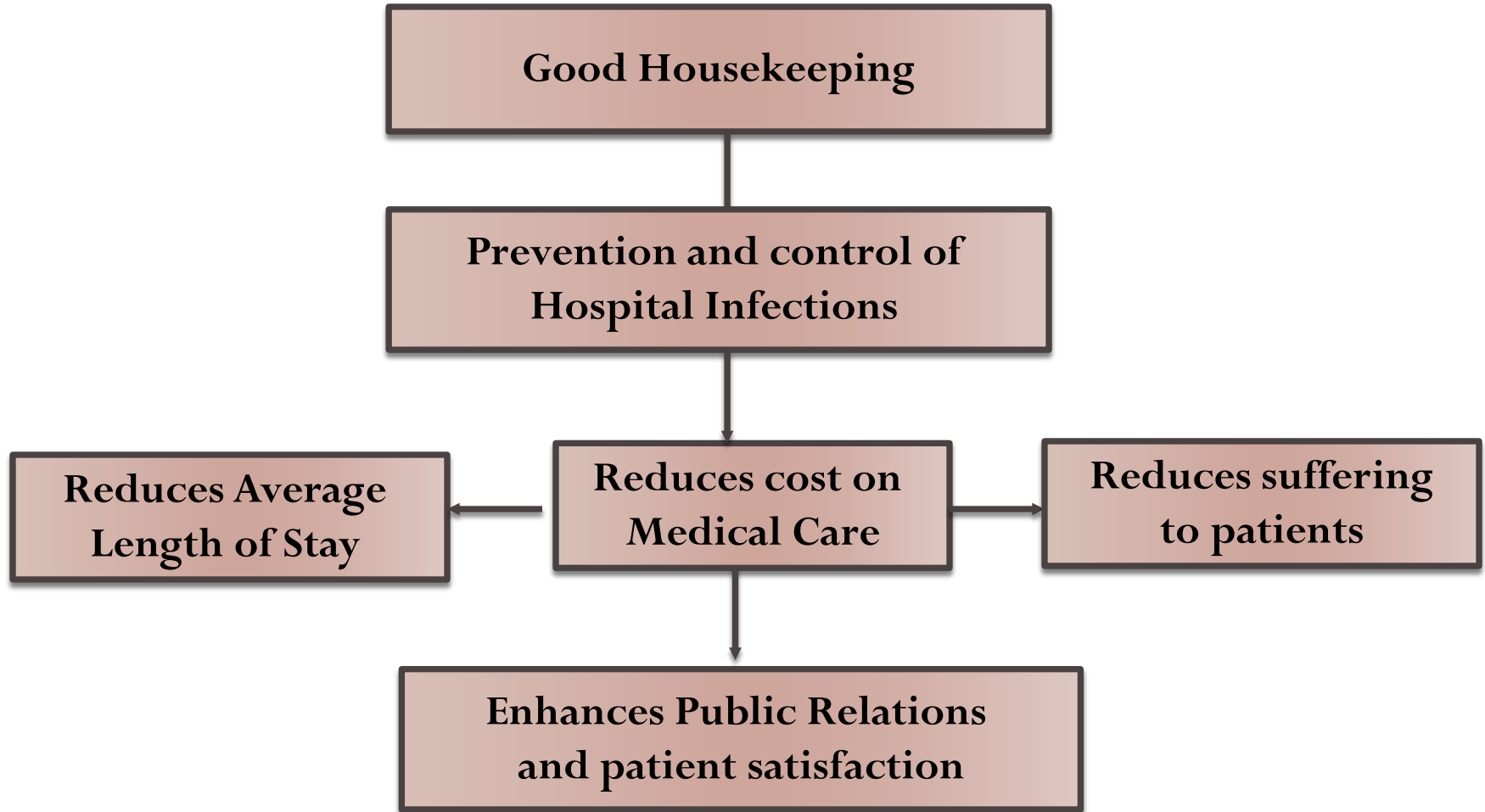
- A) TO ANALYSE HIGH DENSITY AREAS OF HOUSE KEEPING STAFFS.**
- B) TO MINIMISE WASTAGE OF TIME AND MONEY.**
- C) TO FIND WAYS TO INCREASE UTILIZATION IN RESPECTIVE AREAS.**



Housekeeping - Definition

Housekeeping is defined as :“The provision of a clean, comfortable and safe environment for the patients and public in a hospital setup”.

Flow chart of functions of HK



Functions of housekeeping

- @ Ambulance Call Handling & patient support in EMERGENCY
- @ Checking of Pre Discharge Room
- @ Cleaning of Discharge Room, occupied wards, offices , public lobby & instruments.
- @ Medical Gases Delivery system.
- @ Disposal of hospital waste & Infection control.
- @ Replace supplies in utility room .
- @ Clean and maintain medical equipments.
- @ Exterminate bugs and pests.
- @ OPD patient guidance towards respective physicians.
- @ Patient support: sponging, tilt tabling, patient transport to MRI/CT department.

TOTAL NUMBER OF HOUSE KEEPING STAFFS
WORKING PER DAY x 6 Days = 145 (117 on
Sundays)

S.NO	LOCATION	STAFF NUMBERS			
1	DESK ATTENDENT	1	22	OT LINEN	2
2	SUPERVISOR	4	23	PHARMACY	3
3	BARBER	2	24	HEALTH CHECK UP	1
4	FOUL WASH	2	25	ECHO	1
5	LAUNDRY	2	26	OPD	13
6	MICU	11	27	SONOGRAPHY	1
7	SICU	6	28	X- RAY	1
8	NS-1	11	29	MRI/ CT SCAN	2
9	NS-2	11	30	EMERGENCY	6
10	NS-3	2	31	DIALYSIS	1
11	OT- CLEANER	4	32	PHYSIOTHERAPY	1
12	OT-TECHNICIAN	4	33	LOBBY TOILET	2
13	ENDOSCOPY	1	34	PUBLIC TOILET	3
14	CATHLAB	3	35	STORE	1
15	CSSD ATTENDENT	3	36	LABORATORY	2
16	CSSD TECHNICIAN	1	37	BMW	2
17	CCU	4	38	LOBBY	3
18	MULTIBED	9	39	PERIPHERY	5
19	CAG WARD	6	40	OFFICE / GUEST HOUSE	1
20	P WARD	4	41	FRONT OFFICE	1
21	LINEN	2		TOTAL STAFF-	145

SO WHAT IS UTILIZATION ?

The proportion of the available time (expressed usually as a percentage) that a piece of equipment or a system is operating.

Formula: Operating hours x 100 ÷ available hours.

Utilization of house keeping staff = $\frac{\text{Total time consumed} \times 100}{\text{Total time allocated}}$

Wockhardt Hospitals

METHODOLOGY OF STUDY:-

1. DIRECT OBSERVATION OF STAFF ACTIVITIES.
2. SELF-MONITORING USING A LOG OR A DIARY.
3. QUESTIONNAIRES.
4. INTERVIEWING RELEVANT STAFF.
5. MATHEMETICAL CALCULATIONS.

SAMPLE SELECTION:

UTILIZING SMALL SAMPLE TECHNIQUE PROPOSED BY ROBERT V. KREJCIE

University of Minnesota:

$$S = \frac{X^2 NP(1-P)}{d^2 (N-1) + X^2 P(1-P)}$$

- s = required sample size.(106)
- X^2 = the table value of chi-square for 1 degree of freedom at the desired confidence level (3.841).
- N = the population size.(145 STAFFS)
- P = the population proportion (assumed to be .50 since this would provide the maximum sample size).
- d = the degree of accuracy expressed as a proportion (.05).

[KrejcieandMorgan.pdf](#)

AREAS / DEPARTMENTS FOCUSED IN THE STUDY:-

S.NO	DEPARTMENT	STAFF ALLOCATED
1	OPD	13
2	PATH LAB	2
3	ECHO	1
4	BMW	2
5	CSSD	4
6	IP PHARMACY	3
7	DIALYSIS WARD	1
8	EMERGENCY	6
9	PERIPHERY	5
10	CT/MRI	2
11	X-RAY/USG	2
12	MICU	11
13	SICU	6
14	CCU	4
15	NS-1	11
16	NS-2	11
17	NS-3	2
18	MB	12
19	CAG	6
20	PHYSIOTHERAPY	1
21	STORE	1
	SAMPLE SIZE =	106

TIME ALLOCATED PER STAFF

DEPARTMENT	AVERAGE TIME ALLOCATED PER STAFF
OPD	6 HOUR
PATH LAB	9 HOUR 30 MIN
ECHO	11 HOUR
BMW	5 HOURS 30 MIN
CSSD	8 HOURS 45 MIN
IP PHARMACY	8 HOURS 40 MIN
DIALYSIS WARD	8 HOURS
EMERGENCY	7 HOURS 40 MIN
PERIPHERY	8 HOURS
CT/MRI	8 HOURS 30 MIN
X-RAY/USG	10 HOURS
MICU	8 HOURS
SICU	8 HOURS 20 MIN
CCU	6 HOURS 30 MIN
NS-1	6 HOURS 49 MIN
NS-2	6 HOURS 49 MIN
NS-3	6 HOURS 30 MIN
MB	8 HOURS 18 MIN
CAG	8 HOURS 18 MIN
PHYSIOTHERAPY	11 HOURS 30 MIN
STORE	8 HOURS

170 HOUR 18 MIN TO 21 STAFFS = 8 HOURS 5 MIN AVERAGE.

CALCULATION OF TIME CONSUMED PER STAFF

TIME CONSUMPTION : 2 MAIN WORKING AREAS

- A) HOUSE KEEPING-MOPPING FLOOR, DUSTING FURNITURE, FILLING WATER, WASTE DISPOSAL
- B) PATIENT SUPPORT- TRASPORTATION, SPONGING, TILT TABLE(ECHO) , HANDLING BEDPAN etc

[calculations in HK UTILIZATION.xlsx](#)

TIME CONSUMED PER STAFF

DEPARTMENT	TIME CONSUMED PER STAFF
OPD	1 HOUR 30 MIN
PATH LAB	8 HOUR
ECHO	6 HOUR 30 MIN
BMW	5 HOURS
CSSD	7 HOURS 15 MIN
IP PHARMACY	6 HOURS
DIALYSIS WARD	5 HOUR 20 MIN
EMERGENCY	5 HOUR
PERIPHERY	7 HOUR 50 MIN
CT/MRI	5 HOURS 30 MIN
X-RAY/USG	6 HOURS 5 MIN
MICU	2 HOURS 50 MIN
SICU	3 HOURS 15 MIN
CCU	4 HOUR 41 MIN
NS-1	3 HOURS 19 MIN
NS-2	3 HOURS 32 MIN
NS-3	5 HOURS 30 MIN
MB	3 HOURS 50 MIN
CAG	3 HOURS 48 MIN
PHISIO THERAPY	10 HOURS 35 MIN
STORE	5 HOURS 30 MIN

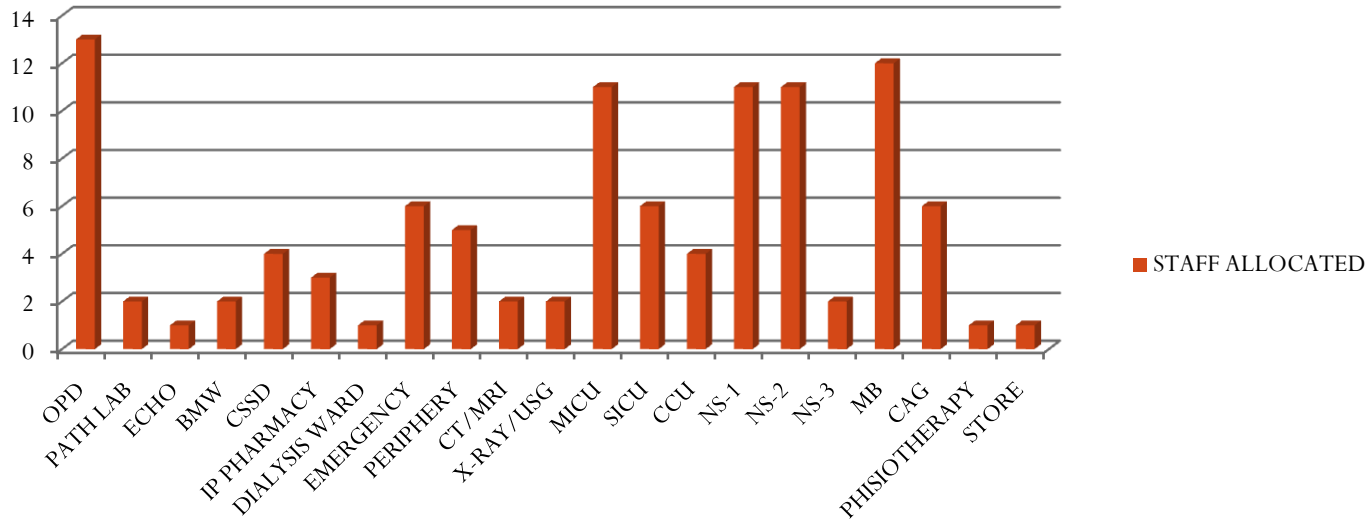
110 HR 50 MIN BY 21 STAFFS = 5 HOUR 16 MIN AVERAGE

STAFF UTILIZATION PER DEPARTMENT

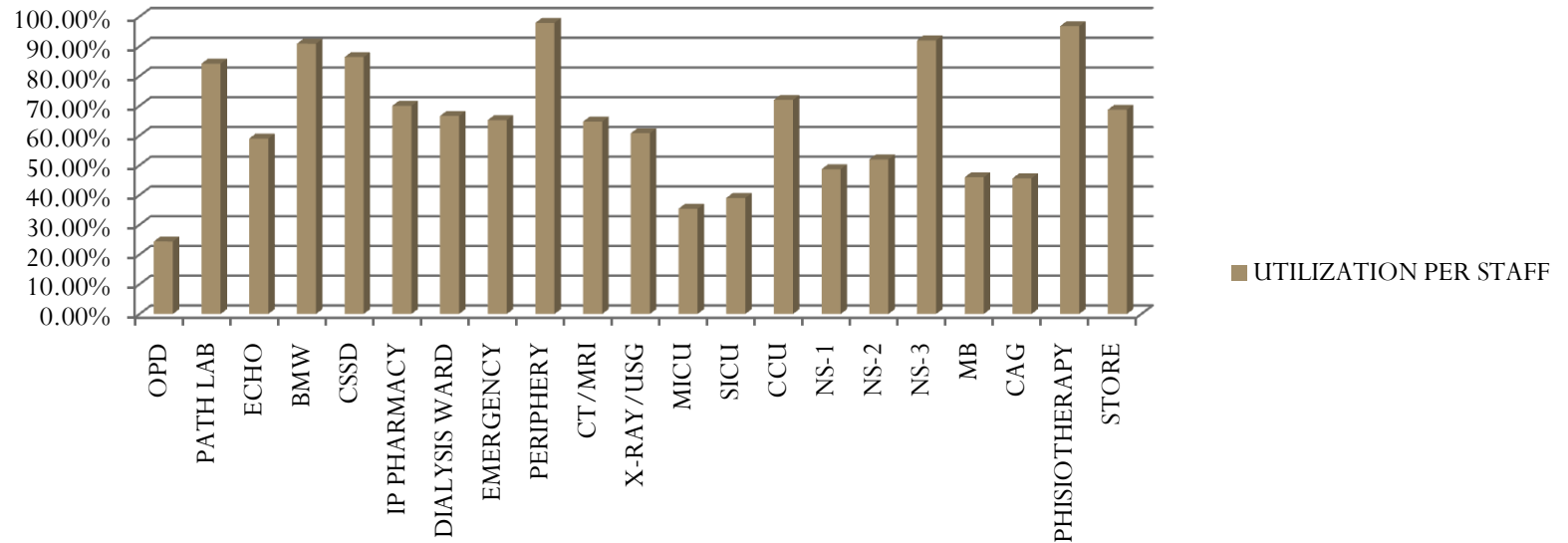
DEPARTMENT	STAFF ALLOCATED	UTILIZATION PER STAFF
OPD	13	24.39%
PATH LAB	2	84.20%
ECHO	1	59.00%
BMW	2	90.90%
CSSD	4	86.40%
IP PHARMACY	3	70.00%
DIALYSIS WARD	1	66.60%
EMERGENCY	6	65.20%
PERIPHERY	5	97.90%
CT/MRI	2	64.70%
X-RAY/USG	2	60.80%
MICU	11	35.40%
SICU	6	39.00%
CCU	4	72.00%
NS-1	11	48.70%
NS-2	11	52.00%
NS-3	2	92.00%
MB	12	46.00%
CAG	6	45.60%
PHISIO THERAPY	1	96.80%
STORE	1	68.70%

COMPARISON OF STAFF ALLOCATION:UTILIZATION

STAFF ALLOCATED



UTILIZATION PER STAFF



CONCLUSION:

- a) As the study shows a clear correlation between high density house keeping staff allocation and under utilization of the same in respected highlighted areas.
- b) Total staff utilization on an average taking 21 focused areas comprising 106 HK staffs is 65%.
- c) Under utilization of house keeping staff resulting in monetary loss on an average RS 1,95,000 /- per month.

RECOMMENDATIONS:-

1. Introducing a utilization method that attempts to maximize the efficiency of a house keeping staff. This can be accomplished by a training an employee in multiple areas so that they can switch from one role to another depending upon where they are most needed at a given time.
2. Focusing on areas of high/low density patient inflow and directing adequate staff directly proportional to the high/ low patient density areas.
3. Introducing flexitime, a system permitting flexibility of working hours at the beginning or end of the day, provided an agreed period of each day (**core time**) is spent at work.
4. Use of technology and reducing house keeping staff density in selected areas, e.g TOKEN system in OPD similar to banks.

FOCUSING ON LOWEST UTILIZED AREA- OPD

STAFF = 13

UTILIZATION = 24.39%

ANALYSIS:

DOCTOR : PATIENT DENSITY- Taking 2013 data out of 27 consultants

- 3 consultants (10.3%) contribute around 41.8% of total patients in OPD.**
- 7 Consultants (24.13%) contribute around 32.81% of total patients in OPD.**
- 10 Consultants (34.48%) contribute around 20.9% of total patients in OPD.**
- 7 Consultants (24.13%) contribute around 3.36 % of total patients in OPD.**

SOLUTION:- (A) DIRECTING HK STAFF TOWARDS HIGH PATIENT DENSITY CONSULTANTS.

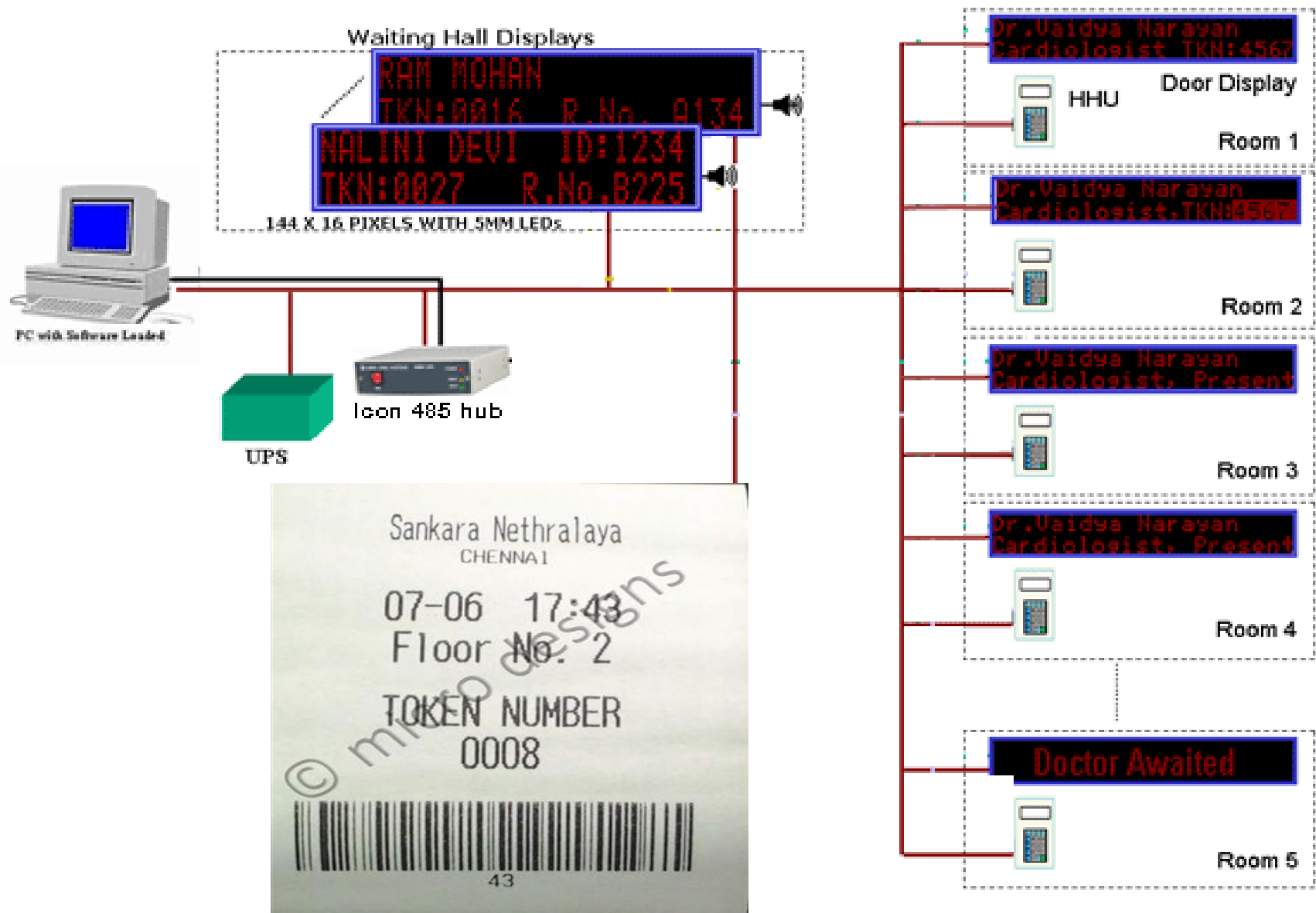
(B) TOKEN SYSTEM IN REDUCING HK STAFF DENSITY:-

- **Token Issuing :** Token will be issued only to a registered patient and also option is given to take print out of the token.
- **Patient Calling :** Doctor can call a patient from the list of patients shown in his Hand Held Unit.
- **House keeping calling :** Doctor can call HK staff from his Hand Held Unit .The name of the Doctor calling the HK will be displayed on the particular Station Display.



- **Reports :** Over half a dozen of management reports can be generated such as Doctors Login/Logout time, Average number of patients treated by a doctor for a month, Average waiting time of patient for a doctor etc which can be used to evaluate the performance of the OPD department.

TOKEN SYSTEM INTEGRATED IN HIS SYSTEM:-



● *THANKYOU*