

**Summer Training at
All India Institute of Medical Sciences, New Delhi
&
University of Chester, Chester (United Kingdom)
(April 9-June 1, 2012)**

Observational Learning

**By
Sushant Gattani**

**Under the Guidance of
Dr Ashok Kaushik**

**Post Graduate Diploma in Hospital and Health Management
2011-2013**



**Institute of Health Management Research,
Jaipur
2012**

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Certificate

This is to certify that **Dr. Sushant Gattani**, from Institute of Health Management Research-Jaipur, has undergone Summer Training at All India Institute of Medical Sciences (AIIMS), New Delhi and University of Chester, England from 9th April 2012 to 2nd June 2012 and from 5th June to 25th June 2012 respectively.

The candidate himself carried out the project. His approach to the study has been sincere, scientific and analytical.

This summer training is partial fulfillment of the course requirement and is recommended for the award of Post Graduate Diploma in Hospital and Health Management.

We wish him success in all his future endeavors.

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Dated the: 05.05.2012

CERTIFICATE

This is to certify that

Dr. Sushant Guttani

has completed

Short Term Training

in the department of

Hospital Administration

at this Institute from

11th April 2012 to 2nd May 2012

★ N.B.:-

This Certificate will not be used on
Letter Heads, Visiting Cards, Name
Plates etc. by the trainees.


REGISTRAR



University of Chester

This is to certify that

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from Monday 7th May 2012 to Friday 25th May 2012

Signed: Ann Bryan

Ann Bryan

Associate Dean, Faculty of Health and Social Care

On behalf of University of Chester

May 2012

Acknowledgement

This report is a part of summer training at All India Institute Of Medical Science (AIIMS) and University of Chester .This report is based on the Observational learning of various departments visited.

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I also express my sincere gratitude towards Dr. Vimal Sharma, Mrs Elizabeth Mason -Whitehead, Prof. Helen Cooper, Dr Parminder Kumar and all the support staff including the professors ,clinicians, nursing staff, and ward secretaries who provided me with the fundamental aspects of various department.

Table of Contents

<u>Serial No</u>	<u>Topic</u>	<u>Page No.</u>
1.	Hospital Profile(AIIMS)	4
2.	Hospital Services	5
3.	Hospital Departments & Centres	6-7
4.	Manifold	8-9
5.	Laundry	10
6.	Blood Bank	11-13
7.	Dr. BRAIRCH	14-18
8.	Dr. Rajendra Prasad Eye Centre	19-21
9.	Cardiothoracic and Neuroscience centre	22-23
10.	ORBO (Organ Retrieval Banking Organization)	24
11.	Jai Prakash Narayan Apex Trauma Centre	25
12.	Health System in U.K.	26
13.	Public Health England	27
14.	Healthy Lives Healthy People	28-29
15.	Clinical Governance in the NHS	30-33
16.	Health Protection Agency	34-38
17.	PDRP in Countess of Chester Hospital	39
18.	Visit to Blackheath Medical Centre	40-41
19.	Visit to Simply Endo Clinic	42
20.	Human Resource Department	43-44
21.	Kisiizi – Chester Project	45-46

Hospital Profile

AIIMS is the premiere institute of the country that has comprehensive facilities for teaching, research and patient-care.

It serves as a nucleus for nurturing excellence in all aspects of healthcare.

Established in the year 1956, AIIMS has been consistently ranked the top medical college in India to pursue an MBBS degree by *India Today* in annual surveys starting in 1997.

AIIMS has held the top slot for the last six years in a row, and has been ranked first for 11 out of the 12 years that India Today has conducted the survey.

AIIMS' excellence has to do with several factors - small class size, excellent library facilities, liberal clinically oriented teaching, research exposure and the ability to set its own curriculum.

Several surveys by The Week and Outlook magazines have named AIIMS the best hospital in India overall, as well as the best in several individual fields such as Cardiology, Neurology, Gastroenterology, Gynaecology and Ophthalmology, ahead of several specialised institutions.

The hospital has been able to maintain high standards of quality while seeing large numbers of patients (3.5 million in 2006) at very low cost to patients ₹10, many of whom live in extreme poverty.

Twenty-five clinical departments including four super specialty centres manage practically all types of disease conditions with support from pre- and Para-clinical departments. However, burn cases, dog-bite cases and patients suffering from infectious diseases are not entertained in the AIIMS Hospital. AIIMS also manages a 60-bedded hospital in the Comprehensive Rural Health Centre at Ballabgarh (Haryana) and provides health cover to about 2.5 lakhs population through the Centre for Community Medicine.

GENERAL OBSERVATIONS

Total Number of Hospital Beds	= 1766 (incl. newly constructed Emergency & Private wards)
Teaching Departments and Centres	= 50
Faculty members (Sanctioned 629)	= 434
Non-faculty staff (Sanctioned 9198)	= 7832
No. of Undergraduate students	= 673
No. of Postgraduate students	= 1134
Medical graduates	= 2321
Postgraduates	= 7405
Nursing graduates	= 1690

HOSPITAL SERVICES

	OPD	Admission	Surgery	Beds (Gen.)	Beds (Pvt.)
<i>Main Hosp.</i>	1510430	70176	75751	1486	125
<i>Dr. R.P. Centre</i>	229799*	30365	29534	280	21
<i>Dr. BRA,IRCH</i>	74080	26002	6177	167	15
<i>C.T. Centre</i>	148227	11227	3772	166	14
<i>N.S. Centre</i>	106681	4083	2951	166	14
<i>C.C.M.</i>	138894	6436	1712	50	—
<i>JPNAT Centre</i>	44456	5046	4307	203*	—

Average bed occupancy	= 80.7 %
Average period of hospital stay	= 5.5 days
Net death rate	= 2.7 %
Infection rate (Crude)	= 8.69 %

(ref: 54th AIIMS annual report 2009-10)
*Recent update

DEPARTMENTS

- Anaesthesiology
- Anatomy
- Biochemistry
- Biomedical Engineering
- Biophysics
- Biostatistics
- Biotechnology
- Centre for Community Medicine
- Dermatology and Venereology
- Endocrinology and Metabolism
- Forensic Medicine
- Gastroenterology and Human Nutrition
- Gastrointestinal Surgery
- Haematology
- Hospital Administration
- Laboratory Medicine
- Medicine
- Microbiology
- Nephrology
- Nuclear Medicine
- Nuclear Magnetic Resonance
- Obstetrics and Gynaecology
- Orthopaedics
- Otorhinolaryngology (ENT)
- Paediatrics
- Paediatric Surgery
- Pathology
- Pharmacology
- Physical medicine and Rehabilitation
- Physiology
- Psychiatry
- Radio-Diagnosis
- Reproductive Biology
- Surgical Disciplines
- Transplant Immunology and Immunogenetics
- Urology

CENTRES

- Cardiothoracic Sciences Centre
- National Drug Dependence Treatment Centre (NDDTC)
- Centre for Dental Education and Research
- Dr B. R. Ambedkar Institute Rotary Cancer Hospital
- Neurosciences Centre
- Dr R. P. Centre for Ophthalmic Sciences
- Jai Prakash Narayan Apex Trauma Centre

Significant Departments and Units at Main AIIMS Hospital

- ✓ OPD (Rajkumari Amrit Kaur)
- ✓ EHS OPD
- ✓ Blood Bank
- ✓ CSSD
- ✓ Laundry
- ✓ Mortuary
- ✓ Emergency
 - Medicine ward
 - Surgical ward
- ✓ Dept. of Hospital administration
- ✓ Wards
 - General
 - Orthopaedic
 - Gynaecology & Obs ward
 - Psychiatry
 - EHS beds
 - Skin & Venereal disease ward

‘AB’ Wing

- ✓ Ground floor : Orthopaedic ward
- ✓ 1st floor : Orthopaedic ward
- ✓ 2nd floor : Gastro & Liver Unit, Day care & renal lab
- ✓ 3rd floor : Gynaecology & Obs ward
- ✓ 4th floor : Nephrology & Dialysis
- ✓ 5th floor : Paediatric surgery
- ✓ 6th floor : Endocrinology & EHS Beds
- ✓ 7th floor : Gastrointestinal surgery, KTP & PAR
- ✓ 8th floor : Recovery & ICU

‘C’ Wing

- ✓ Ground floor : MS Office & Hospital administration
- ✓ 1st floor : Psychiatry ward
- ✓ 2nd floor : Medicine & Haematology
- ✓ 3rd floor : Labour room & NICU (Neonatal ICU)
- ✓ 4th floor : Urology ward
- ✓ 5th floor : Paediatric medicine
- ✓ 6th floor : Emergency ward
- ✓ 7th floor : Surgical ward
- ✓ 8th floor : Minor OT (7-12)

‘D’ Wing

- Ground floor: Blood bank
- 1st floor: Skin & Venereal disease
- 2nd floor: Medicine ward
- 3rd floor: Maternity ward
- 4th floor: ENT ward
- 5th floor: Paediatric ward
- 6th floor: Emergency ward
- 7th floor: Surgical ward
- 8th floor: Main OT (1-6)

MANIFOLD

- **Manifold**: A device for connecting one or more gas cylinders to the central piping system for a specific gas
- **Medical gases**: Any gaseous substance meeting medical purity standards and has application in a medical environment

Gases Used

- Liquid Oxygen
- Nitrous Oxide
- Nitrogen
- Carbon Dioxide

Cylinders

Oxygen	– Black cylinder with white top
Nitrous Oxide	– Blue cylinder
Carbon Dioxide	–Black cylinder with Grey top
Nitrogen	– Black cylinder with silver top

- Main oxygen supply is through oxygen tank outside the manifold room with capacity of about 12000 litres
- Liquid oxygen is stored in oxygen tank.
- Oxygen cylinders are now used as a backup or emergency measure
- They are used only to check their functionality.

Use of Gases

- ✓ *Oxygen* – Ventilators, Anaesthesia and Oxygen therapy.
- ✓ *Nitrous Oxide* – Anaesthesia
- ✓ *Carbon Dioxide* – Some surgical procedures of inflating body cavity to facilitate visibility.
- ✓ *Nitrogen* - Typically used to power surgical equipment during various procedures.

Other components of Manifold:

Anaesthetic Gas Scavenging System

- Used to excavate the remnant anaesthetic gases from the Operation theatre.

Vacuum

- Used for suction in surgical procedures and in dentistry.

Compressed air

- A compressor is present that generates continuous pressure.
- Used to clear Field View during surgery, in ventilators, rotary surgical and dental instruments.
- Alarm systems present
- Emergency release valves present

Medical Vacuum

- Not a medical gas but an essential part of Manifold
- Used in Surgeries, ICU and recovery
- Source – Two Vacuum pumps

<u>Gas</u>	<u>Flow rate(pounds/ hour)</u>	<u>Pressure (bars)</u>
Oxygen	40	4
Nitrous Oxide	15	4
Medical Air	50	4
Surgical Air	250	7
Vacuum	-	0.53

Colour of Pipes

Yellow with white	-	Oxygen
Yellow with Blue	-	Nitrous Oxide
Sky Blue with White & Black-		Medical Air
Sky Blue and Black	-	Vacuum Pipe

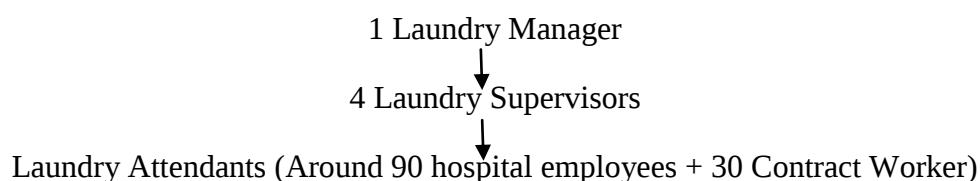
LAUNDRY

- Semi outsourced/ Partially outsourced.
 - Collection, Sorting, Washing and Hydro Extraction done by the contract workers.
 - Drying, Ironing, Folding and Distribution done by the hospital employees.
 - The equipments and machines belong to the hospital.
 - The annual maintenance of machines is the responsibility of the company that has contract with the hospital for maintenance of the machines.
-
- ✓ 1st entry point 2 vans and a truck are used for supply.
 - ✓ The soiled/ Infected Linen are sorted by a worker (Worker wears necessary rubber gloves, mask and plastic apron).
 - ✓ Sorted linen sent for Sluicing, Washing & Hydro Extraction.
 - ✓ Washing is done on 1st floor of the building in 12 machines of 100 kg and 50 kg capacity.
 - ✓ Steam required for washing done at 70⁰ C for 45 minutes.
 - ✓ 1st step rinsing is done around 2 to 3 times with plain water.
 - ✓ 2nd step wash with detergents and drain.
 - ✓ 10% sodium hypochlorite added washing is done.
 - ✓ After washing, linens are checked for stains. If stains are found, then they are washed again.
 - ✓ After washing is done, linen is sent to Hydro extractor to squeeze water out (Total 9 hydro extractors of 50 kg capacity each).
 - ✓ After water is removed, clothes are sent for drying in dryers on 1st floor (Total 6 dryers).
 - ✓ There, the hospital employees take over.
 - ✓ After that the linen moved for press.
 - Calendaring machine present which irons the linen.
 - Steam presses present.
 - ✓ After ironing, Folding is done manually.
 - ✓ The laundry is then sent to the exit point from where the delivery van takes the linen to the hospital.

One boiler room is present outside the laundry about 15 – 20 meters away where 2 electrical boilers are used alternatively and if one fails, another boiler may be used as back up for it until it gets repaired.

Another Diesel Boiler room is under construction.

Staffing



Blood Bank

It is the dept. that deals with the collection, testing, processing (including component separation), storage, prescription & issue of blood & its products for safe transfusion to the patients as requisitioned by the physicians.

Blood bank should be located at the ground floor near the emergency & OT and the area should have good hygiene & sanitation to have an infection – free environment.

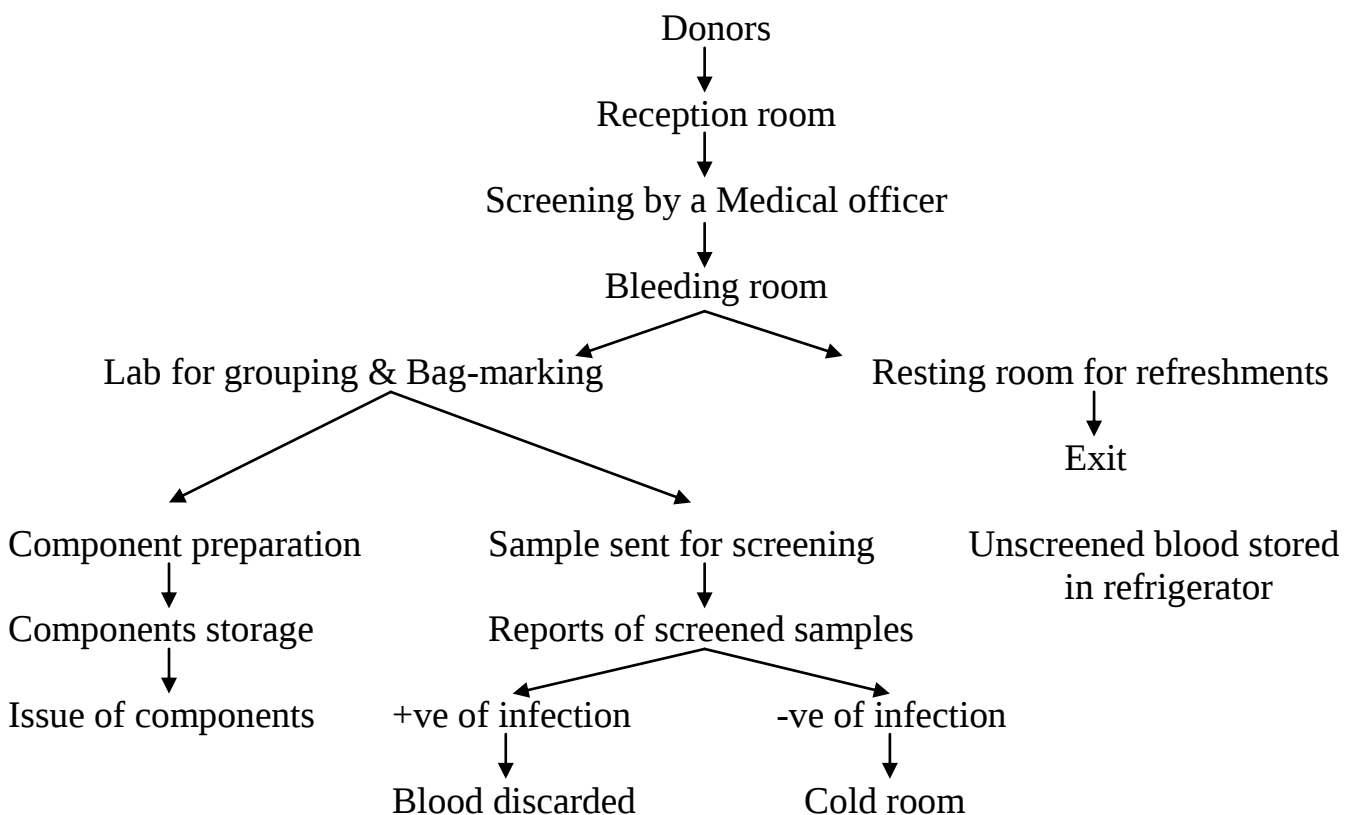
In AIIMS, the Blood bank is located at the Ground floor of the D – Wing.

Entrance – guarded by a security man who also gives the form for blood donation.

Average donors daily = 150 donors

Donors are of 2 types – Voluntary & Relatives.

Work Flow of Blood Bank



Registration room:

Waiting area – 1 Doctor + 1 Attendant

Doctor conducts physical examination for anaemia, jaundice or any infectious disease. CuSo₄ (of 12.5 gravity) Test for Hb is done.

Then the eligible donor is registered on computer system. After clearance the donor proceeds to the bleeding room.

In bleeding room, there are 8 couches for donors where blood is procured in 350 (for females) & 450 ml (for males) bags & samples are sent to screening room for testing of blood.

There 3 samples are taken

1. Grouping
2. ELISA (HIV test)
3. NAT lab

The *Debanchi quarto machine* (ELISA machine) is capable to test 88 samples at a time & takes around three & a half hrs to complete the test. From here the samples are sent to Nucleic Acid Test (NAT) lab to confirm the test –ve samples.

Then the blood is sent to the Component room for processing and division into various components such as FPP (Frozen Plasma Precipitate), Cryoprecipitate, Platelet rich Plasma / Platelets, Packed RBCs.

Component room is that area of blood bank where some blood components are kept at optimum temperatures and suitable environment for future use.

Processes in component room:-

Blood bag comes from the bleeding room. This blood is put in bucket & is weighed. Then the blood is centrifuged to separate the components in the bag.

There are 2 types of movements in centrifuge – Hard spin & Light spin.

From the whole blood, plasma is separated 1st, then the platelets, and later the RBCs.

Storage criteria

- ✓ Platelet storage is of 2 types –
 - 1st five days stored at 20⁰ – 24⁰ C for instant use.
 - Fresh frozen plasma (FFP) is stored at -20⁰ C for a year.
- ✓ 4-Cryoprecipitate is kept for 1 yr at -20⁰ C.
- ✓ The RBC life span is 42 days and is kept at 2⁰ – 8⁰ C.

RBC is stored in a bag that includes 80 ml SAGM -2 solutions for the preservation of RBCs collected from human blood. Each 100 ml SAGM-2 solution contains:-

NaCl IP	– 0.877 gm
Adenine IP	- 0.030 gm
Dextrose Anhydrous	- 0.90 gm
<i>(equivalent to Dextrose monohydrate IP)</i>	
Mannitol IP	-0.52gm
Water (for injection) IP	– 100 ml

Colour coding for different blood groups:-

A	= Yellow
B	= Red
O	= Blue
AB	= White

“Aphaeresis room”

There are 3 couches. It is meant for Single donor platelet (SDP) donor. 5-10 donors donate every day. One procedure takes 35 – 40 mins. Time schedule = 9:30 am – 5:00 pm (Sunday closed).

Storage room

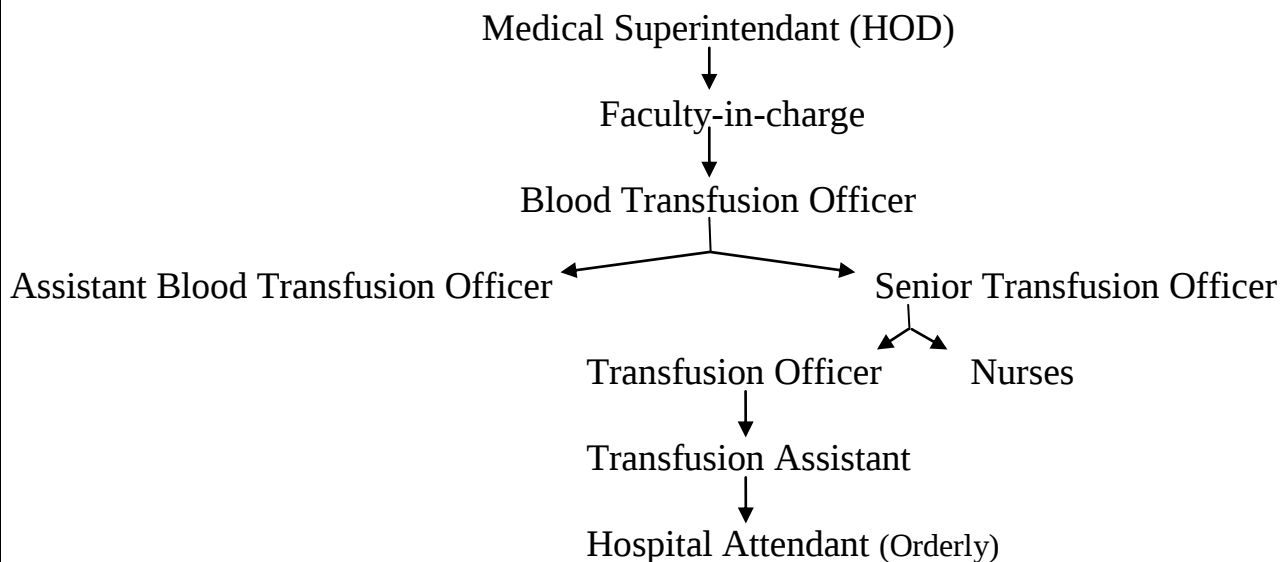
Here the blood is stored that is collected both from the blood bank as well as the camps.

100-125 blood bags are collected in a day by the camps.

The blood collected from camps comes to the storage room directly & not to the component room. Here it is tested for different blood groups and cross matching is also done.

Just adjacent to the storage room is the Blood Dispensing Unit from where the blood is issued.

Staffing pattern



Dr. B.R. Ambedkar Institute - Rotary Cancer Hospital (Dr. BRAIRCH)

- One of the Speciality centres of AIIMS primarily concentrating on cancer patients.
- It started functioning in 1983-84 with 35 beds & infrastructure of 2 floors & was converted into a 182 bedded, 7 floor building on 5th Oct, 2003.
- Current bed capacity = 182 (167 Gen. + 15 Pvt.)
- Location = Within AIIMS campus, adjacent to CN centre & near Hostel #7.
- General Beds:-
 - Day care unit beds = 22
 - Intensive care unit beds =6
 - Palliative care unit beds =6
 - Rest are in Medical Radiation and Surgical Oncology
 - Minor OT
- Specialities include :-
 - Surgical oncology
 - Medical oncology
 - Radiation oncology
 - Lab oncology (tumor pathology)
 - Medical Physics
 - Radiodiagnosis
 - Anesthesiology
 - Preventive and community oncology
- Total OPD attendance =74,080
 - New cases = 8,893
 - Old cases =65,587 *(for period 2009 – 2010)*
- Total Admissions =26,002
 - Regular =5222
 - Day care =20780 *(for period 2009 – 2010)*
- Surgeries = 6177
 - Major =632
 - Minor =5545 *(for period 2009 – 2010)*
- Bed occupancy rate 80.7 %
- Average length of stay = 5.5 days
- Net death rate =2.7 %
- Crude infection rate =8.69 %

Dr BRAIRCH Layout and Facilities:

- Basement floor
 - Medical record section – Records of last 20 yrs kept
 - Stores
 - Medical
 - Surgical
 - General
 - Cell Irradiation Room
- Ground floor
 - Day care room
 - Bolus Chemotherapy
 - Wheel chair & trolley bay
 - Board room for multidisciplinary clinics
 - May I Help You / Enquiry counter at the reception
 - OPD registration - Old cases & new cases counters & Delhi Cancer Registry
 - Main waiting area – adjacent to registration
 - Treatment room

Layout of Ground floor

- Consultation rooms –
 - Sub-waiting consultation room
 - Dressing room
 - Sample collection
- PCU (Day care admissions + overnight)
- Ultra Sono Graphy room
- Digital X-ray
- MSSO Office
- Radiotherapy
- Server room
- Admin office – Dr. S Satpathy (Administrative & stores officer)
- Accounts
- Delhi Cancer registry
- Sanitation office
- Driver room
- Manifold room

Multidisciplinary Organ based clinics

Morning OPDs

New cases = 8:30 am – 11:00 am

Old cases = 8:30 am – 11:30 am

Afternoon OPDs

New cases 1:00 pm – 3:00 pm

Old cases 1:00 pm– 3:30 pm

Radiotherapy Unit

Layout of Radiotherapy dept.:-

- Radiotherapy dept
- X-ray simulator
- CT /CT simulator with console
- Radio therapist room
- Medical physicist
- Conference room
- Treatment planning room
- Co-teletherapy – 1
- HDR Radiotherapy – 1
- Linear accelerator – 2

RT at 1st floor

Selectron OT – 1

- LDR RT
- PDR RT

Selectron OT : Insertion of applicators for brachytherapy

Mould preparations / shielding block / immobilization devices preparation room / compensator.

1st floor

- ✓ Radiotherapy Ward
- ✓ Haematology lab
- ✓ Oncology lab
- ✓ Minor OT
- ✓ Aphaeresis: SDP, Stem cell harvest
- ✓ Surgical Oncology – 20 beds
 - 1-12 =Beds for use
 - 13-18 =Cubicle given to Physiotherapy dept.
 - 19-20 =Not utilised

2nd floor

- ✓ Day care (chemotherapy)
- ✓ Medical Radiation Oncology ward
 - Radiation Oncology = 6 beds
 - Medical Oncology = 20 beds
- ✓ Faculty offices

3rd floor

- ✓ Private wards
 - 15 rooms – (5 beds each for Medical, Radiation & Surgical Oncology)
- ✓ 2 Deluxe rooms
- ✓ Aiims staff cafe

4th floor

- ✓ Medical Oncology Lab
 - Flow Cytometry
 - PCR
 - Stem cell research (*Cryopreservation of stem cells*)
 - Routine Cytogenetics
 - Tissue culture lab - research
 - Molecular oncology
 - RT-PCR (polymerase chain reaction)
 - ELISA Test for Fungal Infections
 - CD 34

5th floor

- ✓ Surgical Oncology Ward
- ✓ Fully equipped ICU
 - 6 bedded 4+ 2 (septic)

6th floor

- ✓ 3 OT suites

7th floor

- ✓ Bone Marrow Transplant (*BMT*) ward
 - 9 beds :- Single room with attached WC
 - Autologous & Allogenic BMT
- ✓ Medical Oncology Ward
 - 18 beds
 - Treatment room
 - Stores
 - Pantry

Key Findings

- No Casualty – Cases are referred from AIIMS main hospital.
- Medical Social Service Officer (*MSSO*) – Kidscan, Cancer Sahyog, Cancer foundation & Indian Ostomy Assn.
- In Medical Record Department every entry was computerized.
- All the discharge records are kept for 10 years in the basement.
- Medico Legal Cases are kept with MRD officer.
- There was a Chemotherapy room in Room no. 15 only for the OPD cases which are referred by the doctor. After this the patient is sent to the day-care unit.
- In private wards admission were in two categories: A and B
- Payments General 200 Rs at time of admission
- B class payment 1100 Rs per day.
- A class payment 1700 Rs per day.
- Dietary Charge
 - 100 Rs per day Advance payment at the time of admission.
 - Billing cycle on weekly basis.

Hospital Personnel

- Faculty
- Technical staff
- Nursing staff
- Residents
- Ministerial staff
- Store staff
- Group A,B
- Group D
- Outsourced data entry operator
- Outsourced sanitation staff

Dr. Rajendra Prasad Eye Centre, AIIMS

- Established in 1967, as a National Centre for ophthalmic sciences.
- There are 14 clinical sub-specialities of ophthalmology complementing by depts. of Community ophthalmology, Ocular pathology, Ocular Biochemistry, Ocular pharmacology and Ocular microbiology.
- In a day, 1400 patients are handled & 70 surgeries are done on average.
- Total 7 seven floors
- 302 beds
- 36 beds in each ward
- 1,2,3,4 wards
 - In each ward there is 1 ANS, 2 Nurses in-charge & 8 staff nurses.
- Employee Health Scheme (EHS) community – 28 beds
- 2, 3- private wards – 11 beds
- OPD time :- 9:00 am – 1:00 pm (after 2:00 pm, specialty clinics commence)

- OPD strength (*for period 2009 – 2010*)

OPD	New cases	○ Old cases	○ Total
○ General OPD	○ 122016	○ 79623	○ 201639
○ Emergency	○ 9515	○ 18645	○ 28160
○ Total Cases	○ 131531	○ 95268	○ 229799

- Round the clock Ocular Emergency Service (15 beds for casualty cases + attached OT)
 - 1 JR (junior resident)
 - 1 SR (senior resident)
 - 1 Consultant

- Floor Layout:-

Ground floor

- OPD (10 Registration Counters)
 - New cases
 - Old cases
 - EHS patients
 - Physically challenged patients
 - Reimbursement forms & Medical certificate
- Anterior segment room
- Orthoptic section
- Consultants' rooms
- MSSO
- MRD (Medical Records Dept.)
- Casualty
- Minor OT
- Radiology
 - X-ray
 - CT Scan

1st floor

- Research lab
- MS (Medical Superintendent) Office
- Investigations Department
 - Oculoplasty lab
 - Retinoblastoma clinic
 - Ultra-sonographic lab
 - Neuro-ophthalmology lab
- Retina Clinic
- Cornea Clinic
- Laser room
 - FFA
 - IOCL
 - NDI
- Contact lens
- Ultra-sonography
- Wards
 - 1A -Squint + Glaucoma + Cataract
 - 1B -Oculoplasty & Retinoblastic

2nd floor

- Wards
 - 2A & 2B – Corneal Ulcer + Cataract + Keretoplastic Glaucoma

3rd floor

- Wards
 - 3A & 3B – Retina + Cataract + Vetero-retinal surgery ward

4th floor

- Wards
 - 4A - Misc + Casualty ward
 - 4B - Community + EHS (28 beds) + Private ward 2 & 3 (11 beds)

5th floor

- Day care
- Operation Theatre

6th floor

- Pharmacology Research Lab
- Biochemistry Research Lab
- Glaucoma Research Lab

7th Floor

- Pathology Lab
- Micro Biology Lab

Other points:-

Elevators

- Total elevators = 4 with lift operators
- 1 lift for Faculty & staff only
- All are stretcher accessible elevators

Sanitation

Outsourced to *Bharat Vikas Group (BVG)*

Total 30 employees including sanitation in-charge

Security

Contracted to *Good Year Security Company*

A guard is always present on every floor (7 floors)

Cardiothoracic & Neurosciences Centre, AIIMS

Provide *state-of-the-art* cardiac & neurological care to patients from all over the country at affordable cost.

- ✓ Ground floor
 - Registration counters, OPD and lab services, blood bank, CT scan
 - Enquiry –manned by a receptionist functioning round the clock
- ✓ Floors 1 to 6 : Each ward has 34 beds
- ✓ NS3 & NS6 are under renovation
- ✓ CT2 has CCU(16 adult + 16 pediatric beds)
- ✓ First floor - Operating rooms & ICUs
- ✓ CTVS OTs, NS ICUs A B C & CTVS ICUs A B on 1st floor
- ✓ Basement : Medical records, Establishment & Engineering services section

Cardio Thoracic Centre (CTC)

The Centre has 180 beds exclusively for cardiology and Cardiovascular Surgery with all the ancillary facilities required for comprehensive care for all cardiovascular disorders.

In 1986 the Centre became fully independent and functional from the new 7 floor building.

The department has 102 beds exclusively for cardiovascular Surgery.

There are seven operating rooms fully equipped for any cardiovascular surgical procedure. The office of the faculty is on the 7th floor.

OPD attendance:	> 1.1 lakhs annually
Indoor admissions:	>10,000 patients annually
Surgical procedures:	>7000 annually
Cardiac diagnostic procedures:	> 20,000 annually

(for period 2009 – 2010)

Departments in CTC:

- Cardiology
- Cardiac Anesthesiology
- Cardiac Pathology
- Cardiac Radiology
- Cardio Thoracic & Vascular Surgery
- Cardiac Biochemistry

✓ **Specialty clinics**

- Arrhythmia/pacemaker clinic-Wednesday morning
- Hypertension clinic- Thursday morning
- Coronary/prosthetic valve clinic-Thursday afternoon
- Heart transplant/Heart Muscle-Thursday afternoon

Package *charges* for cardiac surgeries:

<u>Procedures</u>	<u>Rate (in Rs.)</u>
○ Conduit repair/ Rev. repair	65,000 - 82,000
○ CABG	60,000 - 80,000
○ CABG+1 ABP	85,000 - 1,05,000
○ Heart Transplant	1,00,000

The Neurosciences Centre

- Departments
 - Neurology
 - Neurosurgery
 - Neuro Anesthesiology
 - Neuro Pathology
 - Neuro Biochemistry
 - Neuro Radiology
- Department has Laser, Ultrasound, Intra-operative MRI, *Gamma Knife* and Image Guidance System facilities.
- Over 850 patients have been treated with Gamma Knife Radio surgery, which started functioning in year 1997.
- Clinico-pathological research on head injury, neuro-tuberculosis, glioma, pituitary tumors, peripheral nerve and brachial plexus injury & intracranial aneurysms are being pursued.
- Neurosurgical operations:
- Neurology
 - There are 75 beds including neurointensive care.
 - Clinical care and research activities in the sub-specialties of Movement Disorders, Neuroinfections and immunology, Stroke, Intractable epilepsy, Neuro-muscular Disorders, Sleep, Headache, Dementia.
- **Special clinics**
 - Pain clinic
 - Movement Disorder Clinic
 - Headache clinic
 - Dementia clinic
 - Stroke clinic
 - Sleep disorders clinic
 - Neuromuscular clinic
 - Neuropsychiatry clinic
 - Ataxia clinic
- CN Tower
 - Private rooms : 63 in total
 - Seven floors new building , connected to CNC at 1st floor & 3rd floor
 - 1st to 6th floor—private wards (each floor has 11 rooms)
 - 2nd & 4th floor for cardiac patients only
 - 5th & 6th floor for Neuro patients only
 - 7th floor houses four Neurology OTs
- Nursing Personnel
 - CT center
 - 377 (sanctioned 419) includes staff strength of CN tower
 - Bed strength =180
 - NS center
 - 311 (sanctioned 405)
 - Bed strength =180

Medical records are stored in the basement of CNC.

ORBO (Organ Retrieval Banking Organization)

- ✓ National Facility & Nodal Centre
- ✓ Objectives
 - Encouragement of organ donation
 - Fair and equitable distribution of human organs
 - Optimum utilization of human organs
- ✓ Functions
 - Donor registration
 - Co-ordination from Procurement of Organs to transplantation.
 - Networking with other hospitals.
 - Delhi, Other metropolitan cities and later internationally.
 - Dissemination of information to all hospitals, organizations and individuals.
 - Public education and awareness regarding organ donation.
 - Promotion of organ donation and transplantation.
 - Research & other related functions.

Jai Prakash Narayan Apex Trauma Centre, AIIMS

- No. of beds 203
- No. of Floors 7

Floors layout:

Basement

- Hospital maintenance
- CSSD (Central Sterile Service Department)
- Laundry
- Dietary services (outsourced)
- Security
- Mortuary
- Forensic medicine.
- Medical Record Office
- Training section for ‘Advanced Techniques related to Trauma Management’

Ground Floor

- Duty Officer Room (behind the reception)
- Casualty Ward
- The patients are allotted beds on the basis of Severity
- Radio diagnosis lab (near the Casualty Ward)
- Triage (according to severity)
 - Green Zone – Not Severe
 - Yellow Zone – Moderately Severe
 - Red zone - Highly severe

1st Floor

- Disaster Ward (20 Gen + 6 ICU beds)

3rd – 7th floor

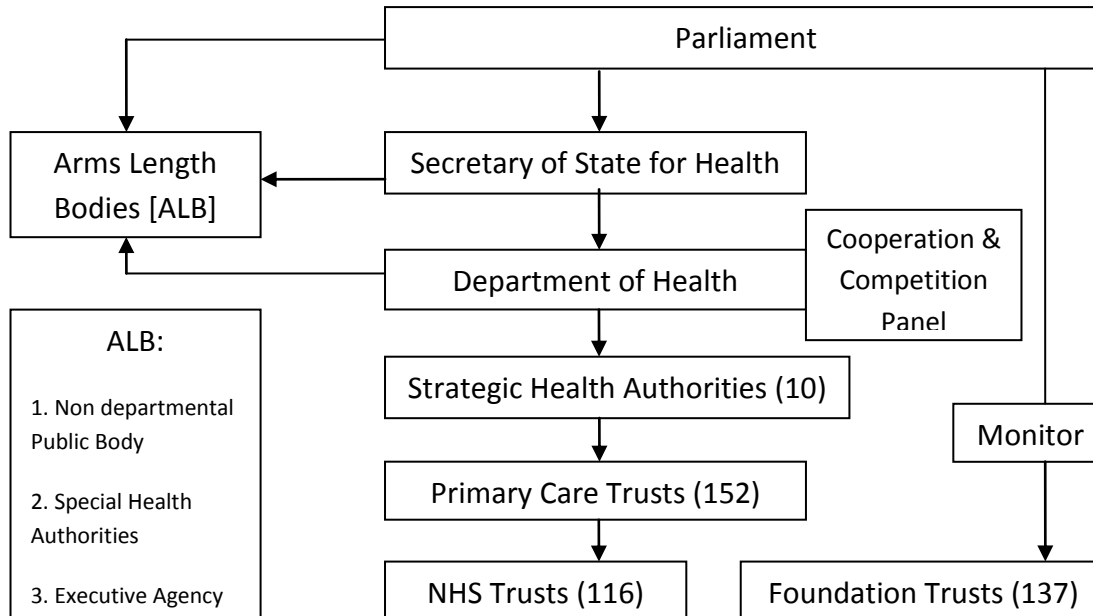
- Surgery Wards With capacity of 30 beds each.

Key Features

- In Triage, upon completion of the initial assessment by medical or paramedical personnel, each patient is labelled with a device called a triage tag. This identifies the patient & any assessment findings & also identifies the priority of the patient's need for medical treatment & transport from the emergency.
- All the wards on all the floor have access to main OT through a ‘Stretcher Assessable Elevator’.
- Ramp Access on all the Floors which aids in mobility & fire exit.
- Disaster ward has automatic door opening system.
- Separate door for ambulance.
- Provision of life support services.

General Observations at University Of Chester

Health System in U.K.:



Public Health England

- Set up as an Executive Agency accountable to the Secretary of State.
- Encompass powers and functions of the Health Protection Agency (HPA) and the National Treatment Agency for Substance Misuse
- A ‘close working partnership’ with the National Health Service (NHS) at national level, and between local Government, Directors of Public Health & Clinical Commissioning Groups (CCG) at local level.

PHE’s status:

- As an executive agency of Department of Health, Public Health England will have the operational autonomy to advise Government, local authorities and the NHS in a professionally independent manner. PHE will be operationally independent.
- PHE will demonstrate transparency through developing plan openly, publishing expert scientific and public health advice, and reporting openly on measures set by government.

PHE’s accountability:

- PHE chief executive is responsible for day-to-day operations of PHE, reporting to the DH permanent secretary and accountable to the Secretary of State.
- The Secretary of State is ultimately accountable to parliament for PHE’s delivery.

PHE’s Mission:

To improve and protect the health & wellbeing of the population and to reduce inequalities in health and wellbeing outcomes.

PHE’s Role:

Work with partners to provide evidence and intelligence, and the ‘cost-benefit analysis’ that will enable local government, the NHS, and the voluntary, community and social enterprise sector, among others to:

- *Invest effectively* in prevention and health promotion.
- Protect the public by providing a comprehensive range of *health protection services*
- Commission and deliver safe and effective *healthcare services* and public health programmes across the life course and pathways
- Ensure interventions and services *meet the needs of different groups in society*, advance equality of opportunity and reduce inequalities.

NHS’s role in PHE:

- Improving and protecting the public’s health.
- Provision of health services and ensuring fair access to those services will contribute to improving health and reducing inequalities.
- Commission specific public health services and seek to maximise the impact of NHS in improving the health of the public, making every clinical contact count.
- PHE will have close working relationship with the NHS Commissioning Board.
- The NHS Future Forum is currently considering how the NHS can contribute to improving the health of the public.

Healthy Lives Healthy People

- Strategy for public health in England
- Sets out key challenges to the public's health.
- Sets out the Government's approach to improving public health.
- Sets out to reform the public health system.

Key challenges:

- Two of the three adults are overweight or obese.
- Smoking costs the NHS £ 2.7 billion per year and there are wider economic and social costs from preventable ill-health: drug use and smoking cost over £ 10 billion per year.
- Major health threats, ranging from the risk of new pandemics to the potential impact of terrorist incidents.
- Inequalities in health remain
 - In 2008-2010: the gap between local authorities with the highest & lowest life expectancy was nearly 12 years for Males & just under 11 years for Females.

The Government aims to:

- Empower local leadership to strengthen health and well-being.
- Support self esteem, increased confidence and personal responsibility.
- Promote healthier behaviour and lifestyles.
- Change the environment to support healthier choices.
- Protect the public from threats to health.

The new public health system:

New roles & responsibilities:

- Leadership role for local authorities.
- supported by a new integrated public health service (Public Health England)
- working alongside the NHS, with its continuing role promoting health through clinical services.

Clear priorities:

- Stronger focus on health outcomes, supported by the Public Health Outcomes Framework
- Public health as a clear priority for Government backed by ring fenced resources.

Local Government's new functions:

- Setting up health & wellbeing boards to integrate commissioning approaches.
- Working with Clinical Commissioning Groups (CCG) to integrate care pathways
- Commissioning public health services from a range of providers.
- Providing population healthcare advice to the NHS.
- To ensure plans in place to protect health.

New role for local Government:

Directors of Public Health

- Employed by local government and jointly appointed by the relevant local authority and Public Health England.
- Be the Strategic leader for public health/ health inequalities in local communities, working in partnership with the local NHS and across the public, private and voluntary sectors.
- Be the Principal Advisor on all health matters to the local authority, its elected members and officers, on the full range of local authority functions and their impact on the health of the local population.
- Supported by a team with specific public health and commissioning expertise.

Local authority commissioning responsibilities:

- | | |
|--|--|
| • Tobacco control & Smoking cessation | • Behavioural & lifestyle campaigns to prevent LTCs |
| • Alcohol & drug misuse | • Local initiatives on workplace health |
| • Services for children & (5-19 years) | • Support & challenge of NHS services (imms & screening) |
| • National Child Measurement Programme | • Public health advice to NHS |
| • Obesity & weight management | • Sexual health services |
| • Local nutrition services | • Seasonal mortality initiatives |
| • Increasing physical activity | • Local role in health protection incidents |
| • NHS Health Checks | • Community safety |
| • Public mental health services | • Social exclusion. |
| • Dental public health services | |
| • Injury prevention | |
| • Birth defect prevention | |

Health & Wellbeing Boards

- Provide a Joint strategic Needs Assessment and develop a 'Health & Wellbeing Strategy'.
- Coordinate & support joint commissioning of NHS, social care & public health services in order to meet the needs of the whole local population effectively.
- Propose required minimum membership: elected representatives, GP consortia, Director of Public Health, Director of Adult Social Services, Director of Children's Services, local 'Health Watch' wherever appropriate, participation of NHSCB.
- Membership extended to include local voluntary groups, clinicians and providers wherever appropriate.

Population health advice to NHS

- To support healthcare commissioners, including via the JSNA, with strategic population data.
- Applying skills to interpret data
- Advice at all stages of the commissioning cycle alongside:
 - Advice from new commissioning support organisations, which will focus on processes & clinical systems & PHE role through information & intelligence service to LAs.
- Further work on role for supporting the NHS commissioning Board & how this advice will meet the needs of CCGs.

Clinical Governance in the NHS

Clinical Governance is the system through which NHS organisations are accountable for continually monitoring and improving the quality of health services and safeguarding high standards of care by creating an environment in which excellence in clinical care will flourish.

- *NHS Quality Improvement Scotland (2005) and Scally & Donaldson (1998)*

Roles:

- To improve the standards of clinical practice in U.K.
- A system for NHS trusts and primary care to ensure that clinical standards are met and that processes are in place to ensure continuous improvement.
- This framework challenges clinicians' traditional autonomy.
- The approach needs to be systematic and & linked to planning processes.

Governance arrangements in healthcare:

- Needs to be an embedded robust process/ framework - part of the culture of the organisation.
- Need to identify clear lines of responsibility and accountability.
- Need procedures to remedy identified poor performance/ practice.
- Need for a comprehensive programme for quality improvement.
- Needs to safeguard established/ existing health standards.

The Seven Pillars of Clinical Governance in NHS:

1. Audit
2. Clinical effectiveness & Research
3. Risk Management
4. Education & Training
5. Patient & Public involvement
6. Using information & IT
7. Staffing & Staff management

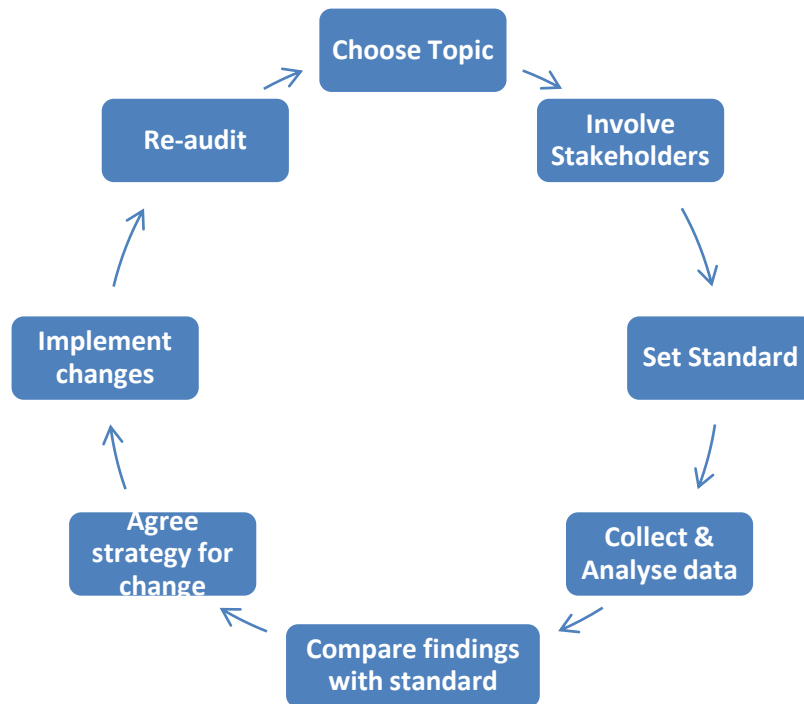
Audit:

It is the continual evaluation and measurement by health professionals of their work to improve the standards they achieve.

- *Gloucestershire Hospitals NHS Foundation Trust*

- Production of evidence based guidance documents/ organisational policy + standards with which to 'benchmark' best practice & to audit against.
- Auditing against these standards provides evidence of achieving best practice or can identify areas of practice where improvement is required or where local practice is different from best practice expectations.
- Audit should be included in organisational plans (& individual PDPs) & can provide an opportunity for planned audit of areas of specific concern or can provide assurance.

The Audit Cycle:



Clinical effectiveness:

- It is the extent to which clinical interventions do what they are intended to do, i.e. maintain & improve the health of patients securing the greatest possible health gain from available resources.
- It is about thinking critically about what you do & questioning whether it is having the desired result.
- It is based upon evidence of what is effective in order to improve patient care & experience.

- NHS Quality Improvement Scotland (NHS QIS 2005)

The 6 R's of clinical effectiveness:

- **R**ight person doing
- the **R**ight thing
- the **R**ight way
- at the **R**ight time
- in the **R**ight place
- with the **R**ight result.

Risk Management:

- Systematic identification and treatment of risk
- Continuous process of reducing risk to organisations and individuals alike
- Culture, processes and structures that are directed towards realising potential opportunities whilst managing adverse events
- Organisational risk register

- NHS QIS (2005)

Patient safety:

- Research from America, Australia and the UK indicates that around 10% of patient contacts result in harm to patients or staff (IoM 1999, Dept of Health 2000)
- It is estimated that half of these harmful or adverse incidents are preventable.
- The physical & emotional consequences of an incident can be significant for patients, staff and carers.
- Adverse incidents also increase costs to the NHS for additional treatment, claims and litigation.

- NHS QIS, 2005

Incident Reporting:

- Clinical incidents and ‘near-misses’ (where there is no harm to the patient) highlight the need for appropriate action to be taken to reduce or manage risks.
- There is valuable opportunity to learn from the barriers that prevented a ‘near-miss’ from becoming a real incident.
- Reporting and learning from incidents and ‘near-misses’ is part of the risk management process in NHS and exists to protect the safety of patients, staff and visitors.

- NHS QIS, 2005

Education & Training:

- Staff must be appropriately skilled and knowledgeable which ‘drives up’ the improvement in quality care & patient outcomes and reduce the risk to patients and the organisation.
- Appropriate education & training allows staff to keep up-to-date and to review their own, their teams & the organisations practice on a regular basis (i.e. clinical effectiveness)
- Organisational commitment to ‘Continuing Professional Development’ (CPD)
- The NHS uses a system of individual appraisal and personal development plans(PDPs) to identify and prioritise training needs both for the individual and the organisation.

Professional vs. Personal:

- Role of the professional bodies (e.g. General Medical Council and Nursing & Midwifery Council) in ensuring that professional Codes of Conduct are adhered to by the members.
- Regulatory and disciplinary roles
- Personal responsibilities of healthcare professionals to ensure they are up to date & fully engaged in CPD.

Patient & Public Involvement:

- NHS wants to ensure that a patient focus is embedded in the culture.
- Listening, understanding and acting on the views of local communities, patients and carers.
- These views need to be given the same priority as clinical standards and financial performance.
- Need for a robust & transparent system for investigating & managing complaints.

- NHS QIS, 2005

‘Whistle-blowing’ in the NHS:

- NHS Employers Organisation (+ professional bodies) provides guidance to support the development of ‘*whistle-blowing*’ policies and procedures in the NHS.
- NHS view is that staff will only feel assured and will have the confidence to act, where employers work in partnership with trade unions to firmly embed good employment practice for handling concerns about risk, wrong-doing or malpractice.
- The need to adopt an honest and transparent approach to reporting errors internally with the staff, wherever possible and practical to do so, and embed this as part of the NHS organisational culture.
- The need to create an environment which is conducive in raising concerns, reasonably and responsibly, without fear of exposure or victimisation.

Using information/ evidence based practice:

- Clinical decisions about treatments and services should be made on the basis of the best available evidence to make sure care is safe and effective.
- Health professionals need to have the skills to identify and assess information from a variety of evidence sources to help them make decisions about care.
- Personal and professional development involves keeping up-to-date and reviewing practice on a regular basis.
- Being able to find and critically examine evidence to determine best practice supports teams to work more effectively with patients.

High Quality Service Development:

- The NHS is committed to a High Quality Service Development agenda (HQSD).
- Strategy where all levels of the organisation are committed to participate in improving practice
- Production of guidance documents/ organisational policy and standards with which to ‘bench mark’ best practice & to audit against
- Process for quality innovation within the organisation.

Health Protection Agency (HPA)

Is a result of Health Protection & Safety Act in 2004

Topics discussed:

- Introduction to HPA by Prof Qutub Syed, Regional Director
- Healthcare Governance in NHS by Ruth Philp, Nurse Consultant in HPA
- Mid Staffordshire NHS Foundation Trust Inquiry by Rita Huyton, Senior Health Protection Nurse Practitioner
- Leadership in Corporate & Clinical Governance by Dr Sam Ghebrehewet, Local Director, Cheshire & Merseyside HPU

4 main areas of Work:

- Infections
- Chemical & Radiation threats
- Emergency planning
- Local & Regional services

Responsibilities:

- Arms Length Body: Non- departmental Public Body
- Advisory role to Government
- Delivery of services to NHS and other agencies
- Impartial advice to public and professionals
- Rapid response to new threats
- WHO IHR National Focal Point for UK
- UK coordination point for UK response to WHO GOARN requests.

It deals with the Healthcare acquired infections, Chemical (environment) exposure, Radiation hazards, Bio-terrorism (eg. Smallpox & Anthrax), Education (Advice & managing situation), Reclamation of contaminated lands.

Governance:

- ✓ Independent board / agency
- ✓ Executive body
- ✓ Senior management team
- ✓ Regional Management team

Funding:

Total expenditure £ 340.7 million

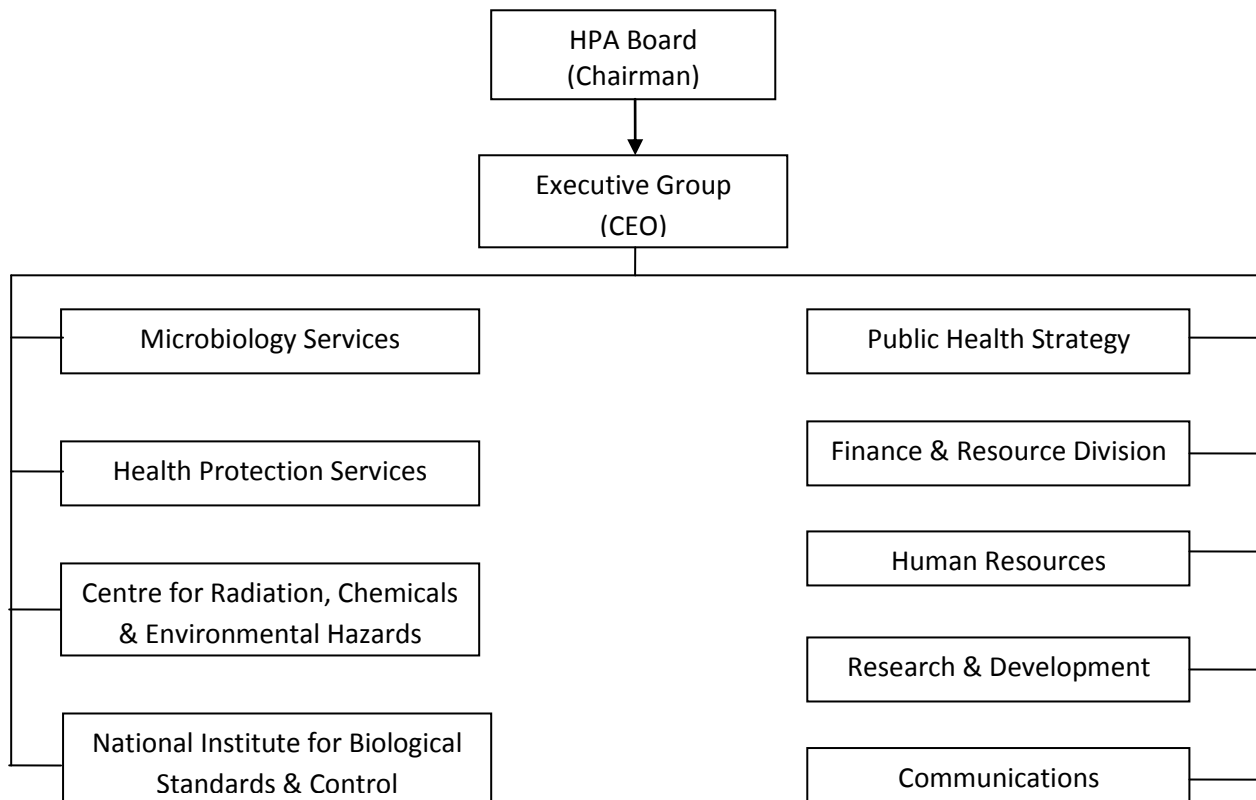
Department of Health (grant in aid) = 57 % (£ 194.2 million)

Non-grant in aid sources = 43 % (£ 146.5 million)

Altogether it has:

- ✓ 9 regional centres UK
- ✓ 26 Health protection units
- ✓ 3800 employees
 - 2200 Scientific & technical
 - 250 Medical
 - 200 Nursing

Organisation:



It comprises of Expert Surveillance Teams and Epidemiologists for expert guidance e.g. In case of an infection outbreak at hospital, they give suggestions in limiting and controlling the spread of infection. They also advice the NHS & General public, Hospital clinicians, GPs (e.g. in case of an animal bite that may lead to spread of an infectious disease).

They gather data which is then provided to local authorities, government, GPs & Private practitioners.

Issues faced by HPA include:

- Recent spread of Whooping cough (ptosis) that appeared in young adults even after been vaccinated against it in early childhood. This indicates need of a Booster dose for Whooping cough.
- There has also been report of 260 new cases of Measles in Liverpool last week. Most of these were not against Measles as there had been a misnomer of MMR vaccine being unsafe and leading to autism and some bowel disorders.
- Additional immunization against pneumococcal infection is an expensive affair.

- Despite WHO's advice to UK, Ireland & Scandinavian countries to include Hepatitis B vaccination in the childhood schedule, it was ignored as Government believed that the money could better be used somewhere else. It signifies an area of conflict between Public health & Government.

Main goals of HPA

- Complete eradication of measles & polio from the world.
- HPA is a credible organisation, that has trained & skilled staff, is politically aware, administers stewardship. It believes in arguing a case based on facts and keeps producing more awareness.
- HPA is given a budget for research and development too.
- HPA deals mainly with Health protection, Promotion and Improvement.

Relationships:



Microbiology Services:

- Specialist & reference microbiology services
- Food, water & environmental sampling
- Specialist diagnostic services
- Antimicrobial & antiviral drug testing
- Vaccine development
- Culture collections
- Biopharmaceutical Manufacturing
- Bio-safety training
- WHO Collaborating Centres (5 labs)

Health Protection Services:

Roles

- National epidemiology service
- Infectious disease surveillance
- Frontline service
- Co-ordination of disease outbreaks
- Syndromic surveillance
- Emergency response exercises (9 per year)
- WHO collaborating centre on Mass gatherings & Extreme events (2011)
- HPA Field Epidemiology Training Programme (FETP)

Various Departments

- 9 Regional offices across England
- 26 Health protection units
- Emergency response department
- Respiratory diseases department
- HIV/STI Department
- Immunisation, Hepatitis & Blood Safety Department

Centre for Radiation, Chemical & Environmental Hazards (CRCE):

Roles

- Advance knowledge of protection from ionising & non-ionising radiations
- Specialist radiation protection services
- Advice to public on health effects of energy mobile phones, UV, Wi-Fi
- Radon services
- Chemical incidence surveillance
- Poisons information service
- Health effects of climate change
- Proposed WHO Collaborating Centre for ionising & non-ionising radiation protection

Various Departments

- Cancer Genetics & Cytogenics
- Environmental assessments
- Electromagnetic field dosimetry
- Extreme events & Health protection
- Nanoparticle Inhalation Research
- Toxicology

National Institute for Biological Standards & Control (NIBSC):

Roles

- Bio processing
- Batch release testing
 - Official Medicines Control Lab
- Research & Development
- Training
- WHO Collaborating Centre & International Laboratory for Biological Standards

- WHO Centre for Reference & Research on Poliomyelitis

Various Departments

- CJD
- Influenza Resource Centre
- UK Stem cell Bank
- Centre for AIDS reagents

HPA International Link-ups:

Intergovernmental Organisations

- World Health Organisation (WHO)
- European Centre for Disease Control & Prevention (ECDC)
- International Atomic Energy Agency (IAEA)

Institutional Links

- National Institute for Communicable Diseases (NICD), South Africa (MoU)
- Australian National University
- Public Health Foundation of India (UK Consortium)
- Chinese National Institute for Food & Drug Control (MoU)
- International Association of National Public Health Institutes (IANPHI)

HPA Global Health Projects:

- Virology Surveillance Network, Antiviral Drug Resistance, UK & South America.
- Secondments & exchanges with NICD, Republic of South Africa.
- Collaborating working with WHO on chemical risk assessment in the context of public health security
- Capacity building, Public Health Management of chemical incidents; training materials & e-learning packages.
- Meningococcal serology capacity building in labs across the sub-Saharan 'Meningitis Belt'.
- International Health Security: Training, Research & Networks, Emergency Preparedness & Response, India

International Working of HPA:

International visits & visitors in 2010 – 2011

- Approx. 1003 outbound visits (56 different countries)
- Approx. 100 inbound international delegations (32 different countries)
- Contact with over 97 different countries to date

WHO Global Outbreak Alert & Response Network (GOARN)

- Founding member (2000)
- UK response coordinator on behalf of Department of Health
- Missions

HPA Staff involvement in:

- 2010 WHO mission: Aluminium incident, Hungary
- 2010 WHO mission: GI outbreak, Seychelles
- 2009 WHO mission: Cholera outbreak, Zimbabwe

WHO International Health Regulations

- UK National Focal Point

Practice Development and Research Partnership (PDRP) in Countess of Chester Hospital

Aim:

- Improve patient care, services and experiences through research, clinical audit and service evaluation.
- Demonstrate best practice and best value.
- Develop organisational practice development and research expertise.
- Embed a culture of learning.
- Enthuse & motivate staff to provide better care and to value their roles within the team.
- Enhance the reputation of the unit to support recruitment and 'provider of choice' status.

Patient involvement and Inter-professional working:

- The PDRP focuses on the patient pathway and incorporates all staff involved with the department.
- The projects will require team work and will enhance inter-professional working relationships within the unit.
- Patients are invited to give their views and to participate in projects.

Involvement in the projects:

- All projects are to be submitted for ethical approval prior to commencement.
- Projects are led by a range of health professionals.
- Patients are supported to lead projects where appropriate.
- All projects have clinical and academic involvement.

Additional benefits to patients:

- Greater participation in the service
- Ownership of their care
- Development of support networks locally (with the potential for regional and national dissemination).

Requirements for PDRP to succeed:

- Commitment to patient led service
- Commitment to practice development and evidence based practice
- Knowledge and understanding of research
- Positive attitude of staff towards research
- Organisational support

Visit to Blackheath Medical Centre, Leasowe

2 doctors surgeries in morning who check approx. 12 patients each. 6 patients on an average are seen by a doctor in the afternoon. Doctors also come to do GP training for max 6 months.

Timings:

6:30 pm – 8:00 pm – GP Services (GPs based at hospital)

1:30 pm – 4:00 pm – Doctors do Administrative work (writing letters) and visit homes of patients who can't come to the clinic by themselves (debilitated, geriatric pts, cancer pts, etc.)

- GPs give prescriptions & may also ask for investigations (blood & radiological). Blood samples may be drawn at clinic and sent to a local hospital.
- Prior appointment is mandatory for a patient by calling on telephone in case of acute illness.
- 2000 patients registered to this clinic. Patients registered to a particular GP must go to that GP only.
- Unregistered patients may be relatives to the registered persons who may be seen and given registration temporarily for 2 weeks.
- Nurses come only during surgery time. They also do Review of Blood pressure and Blood sugar, Immunization & vaccination, Smears, Smoking clinics, dressings, etc.
- Arrow park hospital is the nearest hospital.
- Patients are never charged at any NHS clinic or hospital, as they are charged tax by the National Health Insurance which provides them a health cover.
- Emergency cover on weekends.
- Average time taken in checking a patient by a GP (Turn around time): 10 mins in morning and 15 mins in the evening.
- Home based care visits = Avg. 1 a day.
- Patients' case histories and medical records are recorded on a computer. Old patients' records are also computerised for the convenience. Every patient is provided with a specific NHS number. So their history of medical events and medication can be accessed throughout the country at any NHS clinic or hospital. The software is known as EMIS software.

Issues:

- Physiotherapy and Counselling services are the areas of concern in NHS.
- Waiting list for appointment of physiotherapy can be as long as 6 months.
- Recently Health & Social care bill by NHS is going to be produced which eliminates roles of PCTs and gives funding rights to GPs totally as CCGs. CCGs may also consist of nurses and finance professionals.
- QOF (Quality Outcomes Framework) coined by
- NICE (National Institute for Clinical Excellence)
- This committee meets twice a year to discuss issues related to quality in clinical setups.

- Local hospitals gain about £ 22 million per year from PCTs.
- Private hospitals tend to go for elective surgeries and insured patients.
- <1 % referrals to private hospitals / consultants from this unit.
- Private GPs mainly are the specialists in Dermatology, ENT, Ophthalmology, Orthopaedics & Psychiatry.
- GYPSI – GP with Special Interest.
- It is the Primary care centre that has a personal medical services contract with PCT.

Visit to Simply Endo Clinic

- A specialist dental clinic with theory and practical training of learning dentists.
- In 2003 SimplyEndo started and in 2007 it got affiliated by the University of Chester.
- It's an innovative approach to provide MSc degrees in Endodontics to those dentists who don't have to sacrifice their clinical practice which they would have otherwise done if they had taken admission to any other university.
- The programme for dentistry in UK is:
- Graduation = 5 + 1 (Internship) years
- Specialist programme (Clinical) = 3 years
- MSc Programme (Academic) = 3 years
- MSc has advantage of referrals.
- Staff comprises of 3 members in administration at different levels and 4 teachers (dentists).
- Charges for RCT procedure per tooth = £ 720
- Referral = £ 150

Human Resource Department

Recruiting

Recruiting of employees is a very expensive procedure as on an average that is equivalent to 40% of an employee's annual salary.

But managers usually do not give enough time on recruiting.

During recruitment two aspects are considered

1. Technical competencies
2. Behavioural competencies

- Technical competencies are basically the skills and knowledge and experience an individual has needed for a set of task.
- Behavioural competencies are the personality traits of an individual that may help him cope with certain situations during work or allow an individual to fit into an organization. These are Motivation level, Beliefs, Values, Attitude.
- If a person has good behavioural competencies but is lacking in technical competencies then the skill gap can be filled by training.
- But if a person may be lacking in behavioural competencies it would be difficult to train a person because the behaviour can only be slightly modified but cannot be changed completely.
- During an Interview it is difficult to judge a person and chances of getting a proper candidate from an interview is four out of 10.
- Another method for selecting a candidate can be assessment through assessment centres which include psychometric tests, questionnaires, record evidence, classify and assessing one competence more than one time. It has a very high accuracy of 7 out of 10 recruitments going right.

Motivation

A new motivation theory has emerged called 'Self Determination Theory'. It says that the employees are not motivated by increase in salary or monetary incentives they are motivated by mainly three factors which are -

1. Autonomy
2. Mastery
3. Relatedness

Autonomy

If one tries to exert excessive control on the employees then the employees may only do tasks fairly they would not be motivated to give a better performance and so there would not be any improvement in organization's overall performance.

Mastery

It emphasizes on the innate need of an individual to be curious and master certain skills and improve one self

So the manager may need to know at which level of mastery an individual is and motivate that person by giving a challenging task now that individual should be given carefully as to difficult a task demotivates people and a very easy task also demotivates people so manager should carefully understand the level of an individual and give a task that suits one's capabilities.

Relatedness

It refers of the ability of an individual to connect oneself with one's organization or how and individual identifies one's role in the big picture of an organization.

Emotional Intelligence

A manager should have a higher level of emotional intelligence to develop trust in the employees and to motivate them.

Kisiizi – Chester Project

- Role of Chester University is to help a small hospital in Uganda, Africa in delivering better medical services by teaching the staff there both theory and practice.
- Funds for the project are delivered by WHO.
- Responsibility of training and education of the staff lies with the Countess of Chester hospital.
- Project is for 5 years and will end this year in September.
- It is a privately run Community – based hospital run by the church in Uganda within its premises.
- Major Departments include: Male & Female Surgeries, Paediatrics, Maternity and Mental health.
- 3 Clinicians or Academic trainees from Countess of Chester Hospital go every 6 months to do intensive work with the staff there.

Vital statistics:

- Africa has 24 % of World's health burden, but only has 3 % of world's health workers.
- In rural Uganda, only 3.3 doctors & 16 nurses serve 100,000 populations.

IMR = 76 / 1000 live births

Under 5 MR = 167 / 1000 live births

MMR = 435 / 1,00,000

Life expectancy: 50.4 years

MoH Uganda 2009

A few doctors from UK are there on their goodwill.

Earlier they didn't have much measures of infection control. But after the start of the project they started making soaps and keep hand gels. They also started maintaining a Hospital Waste Management System.

Administrative issues:

- Lack of facilities, infrastructure and resources.
- Shortage of Beds (according to the population served). E.g. Maternity ward has 30 beds only but the occupancy is of 70. Patients lie on floors.
- There are some medical health centres in different areas but they lack IPD facilities. That's the reason there is increased burden on this hospital to admit the patients.
- Poverty and poor economic conditions.
- Population scattered over vast geographical areas
- Lack of transportation facilities and poor public roads access.
- Cultural problems
- People do not ask question or challenge an opinion to avoid being perceived rude. This seriously hinders learning process, so the staffs follow order rather than developing their own understanding over any matter.
- Management is autocratic, trying to keep the position of power so it is uncooperative not open to change.
- People are less confident and do not work properly on their own in the absence of trainers.

Disease Burden

- Malnutrition, Infectious diseases E.g. –Malaria, Tuberculosis
- Alcoholism, occupational injuries and road accidents are major concerns.
- Changes
- Rather than training the Kissizi hospital staff on English line the emphasis is to develop skills in the hospital staff considering their cultural background that would be suitable for them.
- After training there has been substantial improvement in the infection control management and waste management.
- The staffs have now started asking question indicating positive development towards better learning.
- Handover care has improved.
- Now drug rounds are done.