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Case Taking

- Interrogation of the patient (history)
- · General physical examination of the patient

Significance of Case Taking

The systematically interrogation, physical examination of the patient and maintenance of records are essential for providing a good emergency medical care in the very busy A&E department with doctors and paramedical staff, working under great pressure to handle the serious/sick patients as priorities, besides frequently facing medicolegal problems. The relevance/significance of each criterion is:

Age

Some diseases/disorders are common in certain age groups, i.e.

- *Neonatal:* Heart disease, CNS disorders, meningocele, cleft palate, cleft lip, tongue tie, hydrocephalus, club foot.
- Infancy: Respiratory infections, CHF, vomiting, jaundice, hiccup, rickets, scurvy, bed wetting, delayed speech, Wilms' tumor, umbilical hernia.
- Childhood: Respiratory infections, measles, asthma, diarrhea, malaria, juvenile diabetes, appendicitis, asthma, osteomyelitis, osteosarcoma.
- *Adults:* Rheumatoid arthritis, migraine.
- *Elders:* Hypertension, heart failure, osteoarthritis, Alzheimer's disease, falls, senile osteoporosis, SE prostate, pneumonia, carcinomas.

Religion Sex

- Carcinoma penis less common in those having circumcision.
- Hemophilia affects males only, although transmitted through females.
- Carcinoma lips, tongue, GI tract, more prevalent in males.
- Hysteria more in females.

Occupation

Some ailments more common in certain professions (trades), i.e.

- Internal derangement knee (IDK) common in footballers and mine workers.
- Intestinal colic due to lead poisoning common in painters.
- Housemaid knee common in maids.
- Hydated cyst disease common in dogs, domestic animals' caretakers.

Address

• Travel hazards: Exposure to infections, e.g. sleeping sickness (African countries), hydated disease (Australia), influenza infection (prone areas).

Interrogation of the Patient (history): Includes

	Particulars of the pa	tient
Surname	First name	A&E no
Age/DOB	Sex	Date
Son/daughter/wife of		Time
Occupation		
Address		Tel
DOA		DOD
Diagnosis		
A&E consultant/Dr I/C		

Complaints (Symptoms) and their Duration

Inquire the patient (parents/attendants in case of a child/unconscious patient):

- What are his/her currently troubling (chief) complaints?
- Symptoms recorded in a chronological manner of their appearance, i.e. pain in the chest, dyspnea, swelling of feet.
- Either write down how many (weeks, days, months) last, the complaints started/mention the exact date, e.g.

Patterns:

Weeks: (no. of weeks/total no. of weeks per year – symbol)

13/52	Pain in the chest
09/52	Dyspnea
05/52	Swelling of feet

Days: (no. of days/weekly – symbol)
 92/7 Pain in the chest

61/7 Dyspnea 31/7 Swelling of feet

• Date:

14.5.2009 Pain in the chest 15.5.2009 Dyspnea 20.5.2009 Swelling of feet

Months: (no. of months/total no. of months per year – symbol)

3/12 Pain in the chest

2/12 Dyspnea
1/12 Swelling of feet
Pain in the chest Dyspnea Two months
Swelling of feet One month

History of Present Illness

This covers the period from appearance of first symptom to the present time. Let the patient narrate his/her own history of complaints and do not put any leading questions having their own readymade answers.

Inquire

The patient/accompanied person of unconscious/accidental case and the mother/accompanied person in case of a young child, about:

- How did the symptoms start?
- What happened next?

Part

Section 1

- Whether symptoms started suddenly or gradually?
- Whether any relief from complaints during the whole period?
- What sort of treatment taken and whether any relief or not?

Past History

Record any ailments suffered by the patient prior to current one, in a chronological manner, along with their duration.

Child: Record development milestones, e.g. head holding, sitting, crawling, standing, teething, smile, speech, walking.

Personal History

- Whether married or single, number of children and their health condition?
- Habits, diet, appetite, bowl and urinary conditions.
- Any addiction drugs, smoking, alcohol abuse, etc.
- History of menstrual cycle (female patient) normal or abnormal, i.e. amenorrhea, epimenorrhea, menorrhagia, metrorrhagia, dysmenorrhea.
- Any history of miscarriage, postmenopausal condition, vaginal discharge.

Family History (Inquire)

- About the condition of health of parents, children, and other family members living along with. Anybody suffering from similar ailments.
- Any death in the family and the cause of death.
- Any family history of diabetes, hypertension, congestive heart failure, asthma, tuberculosis, hemophilia, cancer.

Pediatric History (Inquire the mother or accompanying person)

- Number of children in the family, any dead and the cause of death.
- Was it a normal delivery and full time child?
- Was the child breastfed?
- Digestion and bowl habits.
- Any previous illnesses (measles, whooping cough, chickenpox, scarlet fever, fits, nausea, vomiting, diarrhea, sore throat, running nose and ears).
- Immunization status (when were primary/booster/repeat doses given) of BCG, polio, DPT, measles, hepatitis B, hib, MMR, typhoid and tetanus toxoid.

Special Interrogation (Systemic Review)

To inquire about the involvement of a particular organ/system, thought to be affected most and about nature of the disease, i.e.

Cardiovascular System (Inquire about)

- History of rheumatic fever, scarlet fever, diphtheria, or sore throat.
- *Chest pain*: One of the most presenting complaints. *Inquire about its* site, character, localization, radiation, duration, factors which precipitate, or relieve it, any medication.
- *Dyspnea*: Is it present at rest or on exertion relieved by rest?

- Any history of orthopnea relieved by sitting.
- Palpitation: Inquire about any rapid, forceful, irregular heart beating.
- Fatigueness: Is there easy fatigability relieved by rest.
- *Edema feet:* Is there swelling of feet?

Respiratory System (Inquire about)

- History of tuberculosis, exposure to fumes/dust, smoking
- Sneezing
- *Cough:* Inquire about its character and frequency, is it dry or purulent one, any association with chest pain
- *Expectoration:* Inquire about its quality and quantity
- Hemoptysis: Any spitting or coughing of blood
- *Dyspnea*: May appear at rest or on exertion
- Cyanosis: More marked, if the patient is cold
- Chest pain
- Cold: Running nose, nasal block

Nervous System (Inquire about)

- History of fits/seizure, paralysis, mental disorders, drugs/alcohol abuse
- · Headache, giddiness, vertigo
- Memory and concentration
- Sleep
- Weakness of any limb
- Proximal muscle weakness
- Tremors
- Tingling sensation
- Feeling ground like cotton wool
- Urinary bladder sphincter control
- Bowel sphincter control

Blood (Inquire about)

- Any history of bleeders in the family, any passage of blood per rectum, any passage of black-colored stools
- Any breathlessness on exertion, muscular weakness, headache
- Swelling of feet.

Gastrointestinal Tract and Abdomen (Inquire about)

- Diet: Quality and quantity of food
- *Appetite:* Decreased or increased
- *Pain:* Site localised or referred; character throbbing, dull or aching; duration any interval of relief from pain, relation to meals
- History of peptic ulcers
- Heartburn (retrosternal burning)
- Dysphasia: Any difficulty in swallowing
- Flatulence and dyspepsia: Relation to food, any relief to pain

Part I

- Nausea
- Vomiting: Frequency, quantity, quality, relation to food and pain
- Hematemesis
- *Constipation:* Bowl habits regular or irregular. Any history of use of purgatives
- *Diarrhea*: Frequency, quality, quantity, relation to meals, passing of blood/slime
- Any history of tenesmus during defecation
- History of piles
- *Liver/gallbladder:* Any pain in region of liver, any history of jaundice, any change in colour of urine or stools

Genitourinary System (Inquire about)

- History of renal disorders
- *Pain:* Site, character dull, aching or severe colicky, localized or referral to groin or testicles
- *Urinary symptoms*: Frequency, urgency, hesitancy, dribbling, overflow, nocturia, dysuria
- Nausea, vomiting, drowsiness, headache, fever, puffiness of face, edema ankle
- History of prostate enlargement
- History of hydrocele

Obstetric and Gynecology System (Inquire about)

- Menstrual history: Menarche, cycle, loss, pain, IMB, PCB, LMP
- Vaginal discharge, cervical smear, contraception
- Obstetric history
- Gynecological any bleeding per vaginum, vaginal discharge, pain abdomen

Eye (Inquire about)

- Vision any disturbance of vision
- Any complaint of halos around lights, flashes
- Pain irritable, dull-ache or severe
- Headache
- Discharge from eye(s) watery, or purulent.

Ear, Nose, Throat (ENT) (Inquire about)

- Earache
- Discharge watery/purulent
- Deafness any hearing loss
- Tinnitus any ringing sensation
- Vertigo any hallucination of movement.

Bones/Joints Disorders (Inquire about)

• History of rheumatism, gout, tuberculosis, syphilis, leucorrhea, diabetes mellitus, shifting joint pains.

Physical Examination (Includes)

- General physical examination (GPE)
- Local examination
- Examination of different systems/parts of the body

Physical examination (preliminary and detailed examination).

General Physical Examination (GPE): Observe

- Appearance: Build, nutrition, presence or absence of anemia, jaundice, cyanosis, clubbing, edema
- Intelligence: Expression
- *Attitude:* Helplessness, keeping limbs in a particular position
- Facial expression: Tense, nervous, toxic, fatigue
- Pulse: Rate, rhythm, volume
- Respiration: Rate, rhythm, thoracic or abdominal
- Temperature
- Blood pressure

Local Examination: The interrogation of the patient leads to the system/organ of the body to be examined first. Examination includes:

Inspection Looking at the patient's body Palpation Feeling the parts of the body

Percussion Listening the sounds elicited by tapping the part with finger

Auscultation Listening body's sounds with a stethoscope

Examination of Different Systems/Parts of the Body

Observe Begin with the head and neck, and proceeds downwards, i.e.

Head

Skull: Size, shape: Hydrocephalus, bossing of fore-/hind-head (rickets)

- Hair: Color, texture
- Eyes:
 - Orbits-exophthalmos/enophthalmos/proptosis
 - Eyeballs strabismus (squint)
 - nystagmus (oscillatory movements)
 - Eyelids ptosis, edema, inflammation (blepharitis), entropion/ ectropion
 - Pupils size, equally, reaction to light and accommodation
 - Conjunctiva anemia, jaundice, trachoma, inflammation, tumor
 - Cornea size glaucoma

curvature - conical

surfaces – corneal reflex, ulcer, opacity

- Sclera myopia, scleritis
- Iris color, iritis
- Lens cataract
- Vitreous fluidity, hemorrhage, foreign body, opacity
- Visual acuity testing distant/near vision
- Ocular tension (IOP) testing by:
 - ♦ Palpating eyeball with eyes open, and by
 - ♦ Tonometer

- Fundus examination with an ophthalmoscope
- Optic disc status, e.g. papilledema, hemorrhage, inflammation
- Retinopathy (diabetic/hypertensive)
- Ears:
 - Foreign body in the ear
 - Discharging ear
 - Audiometry hearing assessment
- *Face*: Expression, shape, paralysis, puffiness
 - Mouth shape, cleft lip, lips pale or cyanotic, fissures (cracks) on lips
 - Tongue appearance, protrusion (any deviation), tongue-tie, ulcer
 - Teeth and gums-hygiene, no. of missing teeth, any denture worn, any bleeding gums
 - Soft palate movements
 - Tonsil normal/swollen
- Neck
- Any engorgement (distension) of neck veins
- Thyroid normal/swollen
- Lymph nodes any enlargement
- Chest inspection Shape of chest any deformity: Rickety rosary (rickets)
 - Respiration rate, rhythm, volume
 - Pulsations/dilated vessels
 - Apex beat
- Palpation
- Local tenderness
- Tracheal position, apex beat
- Percussion Cardiac dullness
- Auscultation Heart sounds, murmurs, breath sounds
- Spine (Inspection and Palpation)
 - Deformity: Kyphosis posterior curvature common in thoracic region.
 - Lordosis anterior curvature common in lumbar region. Scoliosis – lateral curvature – right/left side.
 - Local tenderness.
- Abdomen Inspection
- Size, shape, distension, abdominal movements, dilated vessels, umbilicus, any operational or wound scar.
- Hernial sites impulse on coughing.
- Palpation and Percussion: Local tenderness, any rigidity, (resentment to palpation esp. by a child c/o pain abdomen)
 - · Any palpable swelling, liver, spleen, kidneys, inguinal glands
 - Genitalia
 - Male penis, scrotum, testicles
 - Female external genitalia (if indicated)

Auscultation Peristaltic sounds

P/R (Per rectum) examination

Gynaecology and Obstetrics Examination

Rules The examiner should explain about the purpose of examination, what is about to be done, and verbal/written consent to be taken in advance.

Presence of female staff/attendant is desirable/required as per rules.

Breast

• Any pigmentation of skin, discoloration of skin

Examination • Any retraction of nipple

• Any swelling visible/palpable

• Any discharge from nipples

• Any enlargement (palpable) of axillary glands.

Abdominal examination: Described in appropriate sections

P/V If indicated

Limbs Upper and lower limbs

Inspection • Appearance – shape and size – deformity, shortening

• Nutrition – built, any muscular wasting

Edema – any swelling of feet and thighs

Palpation • Muscle tone, power, reflexes, sensations

Any pitting edema over ankles and thighs

Local tenderness

Pulsations Radial, femoral, posterior tibial, dorsalis pedis

Lymph nodes Any enlargement

Measurements Shortening, muscular wasting

Movements Active and passive

Neurological Examination

- *Higher centres:* Mental status, intelligence, emotional status, speech
- Cranial nerves
- Trunk, gait

Upper and lower limbs:

Inspection Any muscular wasting, skin – pale/cyanotic/red/shining, dry or moist,

trophic ulcers, nails – any brittleness

Palpation Muscle power, tone, reflexes, sensations

Provisional Diagnosis: As a routine, diagnosis of common diseases should be

commonly preferred over rare diseases.

Investigations Include

Routine examination: Blood, urine, stools, vomitus, sputum and CSF.

- Hematology: Complete blood count (CBC): Hemoglobin, RBC, PCV, MCV, MCH, MCHC, TLC and DLC, platelet, BT and CT, ESR
- Biochemistry: Blood sugar fasting, PP and random.
- Serum electrolytes: Sodium, potassium, chloride, calcium, phosphorus, magnesium, iron, amylase, lipase, CPK-MB, CPK-NAC, troponin-T/I.

Part I

Section 1

- Serology: Mantoux test, widal test, Coombs' test, pregnancy test, CRP, RA factor, VDRL, HBsAg (rapid/ELISA), HIV (rapid/ELISA), HAV-IgM, HEV-IgM, torch IgG/IgM, HCV (rapid/ELISA), flocculation tests – Kahn test and Price's precipitation reaction (PPR) for syphilis.
- *Liver function tests (LFT):* Serum bilirubin, SGOT, SGPT, serum proteins total/albumin/globulin, serum alkaline phosphatase.
- *Renal function tests (RFT):* Serum creatinine, serum uric acid, BUN.
- Lipid profile: Serum cholesterol, triglycerides, HDL, LDL, VLDL.
- *Hormones and tumor markers:* TSH, FSH, LH, prolactin, testosterone, PSA, AFP.
- *Urine examination:* Color, reaction, specific gravity, albumin, blood, deposits, electrolytes, Bence Jones protein, ketones.
- Stool examination: Amoebiasis/bacteria
- *Sputum examination:* Any foreign body (AFB)
- Vomitus examination: AFB
- Cerebrospinal fluid (CS) examination: Bacterial infections
- Microbiology
- Blood culture and sensitivity, pus culture and sensitivity, AFB culture, urine and stool culture and sensitivity, throat swab culture and sensitivity.

Special Investigations: Depending on the system affected, e.g.

- CXR (X-ray chest)
- X-ray of affected part
- Ultrasound, MRI, CT scan, myelography
- ECG, sonography, angiography
- Hysteroscopy, hysterosalpingography, hysterosonography, colposcopy, laparoscope, pregnancy testing, endometrial biopsy
- Bone densitometry
- EEG

Note: These are described in appropriate sections

Clinical Diagnosis: Clinical diagnosis at this stage should be complete and precise as much as possible. It is made on the basis of interrogation of the patient, examination, and investigations.

Treatment and Progress: Daily recording of following:

- Treatment given, i.e. medicines, etc.
- Procedures include operations performed.
- Monitoring: Daily progress esp. of acute cases, i.e. recording of general condition of the patient, pulse, respiration, temperature, blood pressure, changes in the size of inflammatory swelling, treatment being received. All investigation reports to be recorded in the case sheet. If any surgery performed, then operation notes to be recorded by the doctor incharge of the case.

Completion of Hospital Record (Discharge Summary)

Recording of condition of patient at time of discharge from the hospital (Table 1.1)

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	Table 1.1: Discharge	summary
Surname	First name	A&E no
Age/DOB	Sex	Date
Son/daughter/wife of		Time
Address		Tel
DOA		DOD
Diagnosis		
A&E consultant/Dr I/C		
Complaints		
Present illness		
Past history		
GP examination		
Treatment and investigations		
		1 of a ward and a line a l
death. In case of death, post	mortem examination re me of discharge: Sched	I of symptoms/signs, or any complication/ port to be entered in the hospital records. Iule of medicines use, any precaution to be
Signature		Date

Referral System

Always inform the GP prior to the discharge of a patient for follow-up purpose, instructions/information to GP about discharged patient (Table 1.2).

Table	1.2: Referral letter to the	GP
Dear Dr		
Patient	. Attended A&E department	on
Diagnosis		
Investigation		
Treatment given		
Aftercare (follow-up)		
Yours sincerely		
Signature		. Date
	Table 1.3: Proforma	
Surname	. First name	. A&E no
Age/DOB	. Sex	. Date
Son/daughter/wife of	. Time	
Address		. Tel
DOA		. DOD
Diagnosis		
A&E consultant/Dr I/C		

	Case taking	
Chief complaint		
History of present illness		
Past history		
Personal history		
Marital status: Single/married/wido	w/widower	. Children
Diet		
Smoking	. Alcohol	Drugs abuse
Physical activity		
Family history		
Father		
Mother		
Siblings		
Interrogation in case of a young c	hild	
(Inquire the mother or accompanying		
Delivery status		
Postnatal		
Birth weight		
Habits	. Eating	. Sleep
Bowel	. Bladder	. Bed wetting
Development milestones	. Head holding	. Crawling
Sitting	_	_
Smile		
Immunization status		
DPT		. Hepatitis B
Chickenpox		
Special interrogation of the patie	ent (systemic review):	
Cardiovascular system		
History of rheumatic fever, scarlet	fever, diphtheria, or sore thre	oat.
Chest pain		
Dyspnea		
Orthopnea		
Palpitation		
Fatigueness		
Edema feet		

Respiratory system

Chest pain

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Nervous system			
History of fits/seizure, paralysis, me	ental disorders		
Orugs abuse	Alcohol abuse		
Headache	Giddiness	Vertigo	
Memory and concentration	S	Sleep	
Neakness of limb/limbs	N	Muscle weakness	
Fremors	Т	ingling sensation	
Jrinary bladder sphincter control			
Blood system			
History of bleeders in the family			
History of malena			
Dyspnea on exertion			
Veakness			
Headache			
Palpitation			
Edema feet			
Gastrointestinal tract and abdom	-		
Diet			
Appetite			
Abdominal pain			
History of peptic ulcers			
Heartburn (retrosternal burning)			
Dysphasia			
Flatulence and dyspepsia Nausea			
Hematemesis			
Diarrhea			
Constipation			
History of piles			
_iver/gallbladder			

History of tuberculosis History of exposure to fumes/dust History of smoking Cough Sneezing Expectoration Hemoptysis..... Dyspnea Cyanosis.....

Genitourinary system		
History of renal disorders		
Pain		
Urinary symptoms:		
Frequency	= -	
Dribbling		
Nocturia		
Nausea		
Headache		
Puffiness of face		
Prostate enlargement	. Hydrocele	
Obstetric and gynecology system	n	
Menstrual history: Menarche	. Cycle	. Loss
PainIMB	PCB	LMP
Vaginal discharge	. Contraception	
Obstetric history		
Gynecological:		
Bleeding per vaginum		Vaginal discharge
Pain abdomen		
Eye		
Vision	Haloo around lie	yhta.
Pain (eye-strain)		
Discharge	•	
Diplopia		
ENT		
Earache		
Discharge	. Watery	. Purulent
Tinnitus	. Vertigo	
Sneezing	. Stuffiness	
Nasal discharge	•	
Sore throat	. Cough	. Expectoration
Bones and joints disorders		
History of rheumatism	. Gout	
Tuberculosis	. Diabetes mellitus	
Syphilis	. Urethral discharge	
Leukorrhea		
Examination of the Patient		
General physical examination (G	PE)	
Appearance		
Intelligence		
Attitude		
Intelligence		

Facial expression	
·	
Blood pressure: SBP	DBP
Local examination (system/orga	an of the body to be examined first)
· ·	
•	
Auscultation	
Examination of different system	ns/parts of the body
Head and neck	Descine of favo /hind bood
	Bossing of fore-/hind-head
Eyes	Evehalla
	Eyeballs
	Pupils
·	
	Les.
	Iris
	Vitreous
·	Ocular tension (IOP)
· ·	nalmoscope
•	
Face	
Mouth	
·	Lips
J. Company	
	Tonsil
Thyroid	Lymph nodes
Chest	
The state of the s	sels
	Apex beat
The state of the s	
	urs
	Local tenderness

Spine Abd	omen	
Inspection:	Size	. Shape
D	istension	. Dilated vessels
А	bdominal movements	
U	mbilicus	Scar
Н	lernial sites – impulse or	n coughing
Palpation a	and Percussion	
Local tende	erness	. Rigidity
Liver		. Spleen
Kidneys		. Inguinal glands
		esticles
	•	lia (if indicated)
	_	
-	·	
-	gy and obstetric examin	
	· -	ation
		Discharge from nipples
_		. Axillary lymph nodes
-	per and lower limbs	C:
inspection:	·	. Size
		. Muscle wastings
5	_	_
Palpation:		. Power
		Sensations
		Local tenderness
		Femoral
	Posterior tibial	Dorsalis pedis
		nent
	Measurements	
Neurologi	cal examination	
Hia	her centres:	
_		Emotional status
	_	
Tru		Gait

Upper and lower limbs:		
Muscular wasting		Skin
		Nails
Muscle power		Muscle tone
Reflexes		Sensations
Examination of a young child		
	Weight	Head circumference
		erence
		Koilonychia
		Umbilicus
		Cyanosis
		·
•		
	Investigation	ons
Clinical diagnosis		
7	Freatment and p	
		Date
Table 1.4	: Completion of	f hospital record
Fully cured, relieved of symptoms/s	signs	
Postmortem examination report		
Instructions to the patient at the time Schedule of medicines use	_	
Precaution to be taken		
Date of follow-up (check up) at the	hospital/GP's cli	nic
Signature		Date

Referral System

Instructions/information to GP about discharged patient:

т	able 1.5: Referral system
Patient Diagnosis Investigation Treatment given	. Attended A&E Department on
Aftercare (follow up)	
Yours sincerely	
Signature	Date

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