جدول اللقاحات الوطني

صحة أطفالكم أمانة بين أيديكم

ضع ✓ عند اعطاء اللقاح	نوع اللقاح ورقم الجرعة	العمر عند التلقيح	تاريخ التلقيح	موعد التلقيح القادم
	الكبد الفايروسي نمط B صغار	خلال اول ٢٤ ساعة من الولادة	/ / ٢٠	/ / ٢٠
	شلل الاطفال الفموي جرعة الصفر	خلال الاسبوع الاول	/ / ٢٠	
	بي سي جي			
	شلل الاطفال الفموي ج١	٢ شهر	/ / ٢٠	/ / ٢٠
	الخماسي الخلوي ج١			
	المكورات الرئوية المقترن ج١			
	الفايروس الدوار ج١			
	شلل الاطفال الفموي ج٢	٤ شهر	/ / ٢٠	/ / ٢٠
	الخماسي ج٢			
	شلل الاطفال الزرقي ج١			
	المكورات الرئوية المقترن ج٢			
	الفايروس الدوار ج٢			
	شلل الاطفال الفموي ج٣	٦ شهر	/ / ٢٠	/ / ٢٠
	الخماسي الخلوي ج٣			
	شلل الاطفال الزرقي ج٢			
	المكورات الرئوية المقترن ج٣			
	الفايروس الدوار ج٣			
	الحصبة المنفردة	٩ شهر	/ / ٢٠	/ / ٢٠
	فيتامين A(١٠٠٠٠٠) وحدة دولية			
	الحصبة المختلطة ج١	١٢ شهر	/ / ٢٠	/ / ٢٠
	شلل الاطفال الفموي (منشطة ١)	١٨ شهر	/ / ٢٠	/ / ٢٠
	اللقاح الثلاثي (منشطة ١)			
	الحصبة المختلطة ج٢			
	فيتامين A(٢٠٠٠٠٠) وحدة دولية			
	شلل الاطفال الفموي (منشطة ٢)	(٤-٦) سنوات	/ / ٢٠	
	اللقاح الثلاثي (منشطة ٢)			
	فيتامين A(٢٠٠٠٠٠) وحدة دولية			

عزيزي الأب .... عزيزتي الأم .....

١- إن التلقيح يحمي أطفالكم من مخاطر الكثير من الأمراض خصوصا الإلتقالية

٢- التزامكم بإعطاء اللقاحات الواردة في جدول التلقيحات الوطنية يمنح المناعة الكاملة لأطفالك

unicef for every child

Asiacell

zain

Vaccination Program (immunization)

Expanded Program of Immunization -EPI : it is a global attempt to reduce morbidity and mortality of childhood vaccine preventable diseases, it is adopted by WHO ,UNICEF , and other international agencies with a coverage rate 80% and more.

It is called expanded because we can add new vaccines according to health needs.

Vaccine : it is a substance that is contain micro organisms , bacteria or viruses either live attenuated , killed , or toxin of micro organism that introduce to the body and stimulate antibody antigen reaction and produce active type of immunity.

Passive immunity result from injecting antibodies inside body.

International vaccine schedule : time table of vaccination adopted in IRAQ starting from first day of life up to 6 years of age.

First week --- BCG intradermal –left upper shoulder

Hepatitis B ,IM --- thigh

Oral polio , oral two drops (sabin)

Two month------ penta vaccine,IM ---------thigh

Oral poilo

Pneumococcal vaccine,IM------ Thigh

Rota virus, five cc ,orally

Fourth month---------- penta vaccine,IM ---------thigh

Oral poilo

Pneumococcal vaccine,IM------ Thigh

Rota virus, five cc ,orally

Injectable polio, IM---------Thigh (salk)

SIX month---------- penta vaccine,IM ---------thigh

Oral poilo

Pneumococcal vaccine,IM------ Thigh

Rota virus, five cc ,orally

Injectable polio, IM----------Thigh (salk)

Nine minth---------- Single measles vaccine, SC ---------arm

Vit. A100000 unit

One year ----------MMR vaccine ,SC, first dose ----------arm

18 month----------oral polio , oral two drops(first boaster)

Triple vaccine(DPT), IM --------- thigh(first boaster)

MMR, SC ,second dose,---------- arm

Vit A ,200000 unit

4-6 year---------- oral polio , oral two drops (second boaster)

Triple vaccine(DPT), IM ---------- thigh (second boaster)

Vit A ,200000 unit

Note: penta vaccine: DPT, Hemophilus influenza, Hepatitis B

Triple vaccine : DPT

Types of vaccine:

Live attenuated bacteria ----------BCG

Killed bacteria ----------P(Pertussis), Typhoid

Live attenuated viruses----------single measles, oral polio (sabin) , MMR

Killed viruses----------injectable polio (salk) ,influenza , Hepatitis A

-Chromosomal engineering----------Hepatitis B

Toxin ---------- ----------Tetanus toxoid , diphtheria

Contra indication of vaccination :

There is no absolute contra indication, the only contra indication is when you suspect cardiogenic shock when it is recorded at first dose as in case of DPT cause shock in first dose so we give the child only DT in second dose.

Condition in which post bond the vaccine:

1.highe fever more than 38.5 degree cent grate.

2. Acute sever illness.

3.Admission to hospital for any cause.

4. history of blood transfusion two month ago.

5. History of steroid drugs intake for three month ago.

Side effect of vaccination:

1. Local effect: as redness, swelling , tenderness, limitation of movement , and abscess formation.
2. General effect : fever (need antipyretics), shock (need adrenaline 0.1 cc for each year of age sc) ,
   Hyper sensitivity : need hydro cortisone injection

Vaccination Room Requirement

1. Special room.
2. Vaccine.
3. Cool chain : which is special system that ensure manufacturing , storage, transferring vaccine in a temperature range from 2-8 degree cent grate, as the vaccination box, cool box, refrigerator, .
4. Recording system.
5. Syringe.
6. Vaccination charts.
7. Thermometer for vaccine.
8. Safety box.
9. No need for antiseptics.
10. Emergency drugs.

Escaped baby from vaccine : is the baby who started the vaccination program , then he was escaped from the vaccine dose without clear cause.

Hepatitis B vaccine for adult : SC injection in the arm

First dose ----zero dose

Second dose ------after one month (4wk)

Third dose ---------after 6 month of the first one

Target group : all health care workers, any worker with blood like butchers ,barbers, also patients with renal dialysis, or thalassemia, leukemia who need blood transfusion.

TREATMENT PLAN B
TO TREAT DEHYDRATION

APPROXIMATE AMOUNT OF ORS SOLUTION TO GIVE IN THE FIRST 4 HOURS:

Age *	Less than 4 months	4 - 11 months	12 - 23 months	2 - 4 years	5 - 14 years	15 years or older
Weight	Less than 5 kg	5 - 7.9 kg	8 - 10.9 kg	11 - 15.9 kg	16 - 29.9 kg	30 kg or more
In ml	200-400	400-600	600-800	800-1200	1200-2200	2200-4000
In local measure						

* Use the patient's age only when you do not know the weight. The approximate amount of ORS required (in ml) can also be calculated by multiplying the patient's weight (in kg) times 75.

- If the child wants more ORS than shown, give more.
- Encourage the mother to continue breast-feeding.
- For infants under 6 months who are not breast-fed, also give 100-200 ml clean water during this period.

OBSERVE THE CHILD CAREFULLY AND HELP THE MOTHER GIVE ORS SOLUTION:

- Show her how much solution to give her child.
  Show her how to give it - a teaspoonful every 1-2 minutes for a child under 2 years,
- frequent sips from a cup for an older child.
- Check from time to time to see if there are problems.
- If the child vomits, wait 10 minutes and then continue giving ORS, but more slowly, for example, a spoonful every 2-3 minutes.
- If the child's eyelids become puffy, stop ORS and give plain water or breast milk. Give ORS according to Plan A when the puffiness is gone.

AFTER 4 HOURS, REASSESS THE CHILD USING THE ASSESSMENT CHART. THEN SELECT PLAN A, B, OR C TO CONTINUE TREATMENT.

- If there are **no signs of dehydration**, shift to plan A. When dehydration has been corrected, the child usually passes urine and may also be tired and fall asleep.
- If signs indicating **some dehydration** are still present, repeat plan B, but start to offer food, milk and juice as described in plan A.
- If signs indicating **severe dehydration** have appeared, shift to plan C.

IF THE MOTHER MUST LEAVE BEFORE COMPLETING TREATMENT PLAN B:

- Show her how much ORS to give to finish the 4- hour treatment at home.
- Give her enough ORS packets to complete rehydration, and for 2 more days as shown in plan A.
- Show her how to prepare ORS solution.
- Explain to her the three rules in plan A for treating her child at home:
  - to give ORS or other fluids until diarrhoea stops
  - to feed the child
  - to bring the child back to the health worker, if necessary.

USE OF DRUGS FOR CHILDREN WITH DIARRHOEA

- ANTIBIOTICS should ONLY be used for dysentery and for suspected cholera cases with severe dehydration. Otherwise, they are ineffective and should NOT be given.
- ANTIPARASITIC drugs should ONLY be used for:
  - Amoebiasis, after antibiotic treatment of bloody diarrhoea for Shigella has failed or trophozoites of E. histolytica containing red blood cells are seen in the faeces.
  - Giardiasis, when diarrhoea has lasted at least 14 days and cysts or trophozoites of Giardia are seen in faeces or small bowel fluid.
- ANTIDIARRHOEAL DRUGS and ANTIEMETICS should NEVER be used. None has proven practical value. Some are dangerous.

TREATMENT PLAN C
TO TREAT SEVERE DEHYDRATION QUICKLY

FOLLOW THE ARROWS. IF ANSWER "YES", GO ACROSS. IF "NO", GO DOWN

START HERE

Can you give intravenous (IV) fluids immediately?

YES →

- Start IV fluids immediately. If the patient can drink, give ORS by mouth while the drip is set up. Give 100 ml/kg Ringer's Lactate Solution (or, if not available, normal saline), divided as follows:

Age	First give 30 ml/kg in:	Then give 100 ml/kg in:
Infants (Under 12 months)	1 hour *	5 hours
Older	30 minutes *	2 ½ hours

* Repeat once if radial pulse is still very weak or not detectable.

- Reassess the patient every 1-2 hours. If hydration not improving, give the IV drip more rapidly.
- Also give ORS (about 5 ml/kg/hour) as soon as the patient can drink: usually after 3-4 hours (infants) or 1-2 hours (older patients).
- After 6 hours (infants) or 3 hours (older patients), evaluate the patient using the assessment chart. Then choose the appropriate Plan (A, B or C) to continue treatment.

NO ↓

Is IV treatment available nearby, (within 30 minutes)?

YES →

- Send the patient immediately for IV treatment.
- If the patient can drink, provide the mother with ORS solution and show her how to give it during the trip.

NO ↓

Are you trained to use a naso-gastric (NG) tube for rehydration?

YES →

- Start rehydration by tube with ORS solution: Give 20ml/kg/hour for 6 hours (total of 120 ml/kg).
- Reassess the patient every 1-2 hours:
  - If there is repeated vomiting or increasing abdominal distension, give the fluid more slowly.
  - If hydration is not improving after 3 hours, send the patient for IV therapy.
- After 6 hours, reassess the patient and choose the appropriate Treatment Plan.

NO ↓

Can the patient drink?

YES →

- Start rehydration by tube with ORS solution: Give 20 ml/kg/hour for 6 hours (total of 120 ml/kg).
- Reassess the patient every 1-2 hours:
  - If there is repeated vomiting, give the fluid more slowly.
  - If hydration is not improving after 3 hours, send the patient for IV therapy.
- After 6 hours, reassess the patient and choose the appropriate Treatment Plan.

NO ↓

URGENT: Send the patient for IV or NG treatment

NOTES:

- If possible, observe the patient at least 6 hours after rehydration to be sure the mother can maintain hydration giving ORS solution by mouth.
- If the patient is above 2 years and there is cholera in your area, give an appropriate oral antibiotic after the patient is alert.

WORLD HEALTH ORGANIZATION
Programme for Control of Diarrhoeal Disease

MANAGEMENT OF THE PATIENT WITH DIARRHOEA

USE THIS CHART FOR PATIENTS WITH:

- loose or watery stools
- loose stools with blood

1992

FIRST, ASSESS YOUR PATIENT FOR DEHYDRATION

	A	B	C
1. LOOK AT: CONDITION	Well, alert	* Restless, irritable *	* Lethargic or unconscious; floppy *
EYES	Normal	Sunken	Very sunken and dry
TEARS	Present	Absent	Absent
MOUTH and TONGUE	Moist	Dry	Very dry
THIRST	Drinks normally, not thirsty	* Thirsty, drinks eagerly *	* Drinks poorly or not able to drink *
2. FEEL: SKIN PINCH	Goes back quickly	* Goes back slowly *	* Goes back very slowly *
3. DECIDE:	The patient has NO SIGNS OF DEHYDRATION	If the patient has two or more signs including at least one * sign *, there is SOME DEHYDRATION	If the patient has two or more signs including at least one * sign *, there is SEVERE DEHYDRATION
4. TREAT:	Use Treatment Plan A	Weigh the patient, if possible, and use Treatment Plan B	Weigh the patient and use Treatment Plan C URGENTLY

THEN, FOR OTHER PROBLEMS

IF BLOOD IS PRESENT:

- Treat for 5 days with an oral antibiotic recommended for **Shigella** in your area.
- Teach the mother to feed the child as described in Plan A.
- See the child again after 2 days if:
  - under 1 year of age
  - initially dehydrated
  - there is still blood in the stool
  - not getting better
- If the stool is still bloody after 2 days, change to a second oral antibiotic recommended for **Shigella** in your area. Give it for 5 days.

IF DIARRHOEA HAS LASTED AT LEAST 14 DAYS:

- Refer to hospital if:
  - the child is under 6 months old
  - dehydration is present. (Refer the child after treatment of dehydration.)
- Otherwise, teach the mother to feed her child as in Plan A, except:
  - give only half the usual amount of milk, or replace milk with a fermented milk product, such as yoghurt.
  - assure full energy intake by giving 6 meals a day of thick cereal and added oil, mixed with vegetables, pulses, meat, or fish.
- Tell the mother to bring the child back after 5 days:
  - if diarrhoea has not stopped, refer to hospital.
  - if diarrhoea has stopped, tell the mother to:
  - use the same foods for the child's regular diet.
  - after 1 more week, gradually resume the usual animal milk.
  - give an extra meal each day for at least 1 month.

IF THE CHILD HAS SEVERE MALNUTRITION:

- Do not attempt rehydration; refer to hospital for management.
- Provide the mother with ORS solution and show her how to give 5 ml/kg/hr during the trip.

IF THE CHILD IS UNDER 2 MONTHS OF AGE:

- Rehydrate as necessary. If there is fever (38° C or above) after rehydration, refer to hospital. Do not give paracetamol or an antimalarial.

IF THE CHILD IS 2 MONTHS OF AGE OR OLDER:

- If temperature is 39° C or above, give paracetamol.
- If there is falciparum malaria in the area, and the child has any fever (38° C or above) or history of fever in the past 5 days, give an antimalarial (or manage according to your malaria programme recommendation).

TREATMENT PLAN A
TO TREAT DIARRHOEA AT HOME

USE THIS PLAN TO TEACH THE MOTHER TO:

- Continue to treat at home her child's current episode of diarrhoea.
- Give early treatment for future episodes of diarrhoea.

EXPLAIN THE THREE RULES FOR TREATING DIARRHOEA AT HOME:

1. **GIVE THE CHILD MORE FLUIDS THAN USUAL TO PREVENT DEHYDRATION:**
   - Use recommended home fluids. These include: ORS solution, food-based fluids (such as soup, rice water, and yoghurt drinks) and plain water. Use ORS solution for children described in the box below. (Note: If the child is under 6 months old and is not yet taking solid food, give ORS solution or water rather than a food-based fluid).
   - Give as much of these fluids as the child will take. Use the amounts shown below for ORS as a guide.
   - Continue giving these fluids until the diarrhoea stops.
2. **GIVE THE CHILD PLENTY OF FOOD TO PREVENT MALNUTRITION:**
   - Continue to breast-feed frequently.
   - If the child is not breast-fed, give the usual milk.
   - If the child is 6 months or older, or already taking solid food:
   - Also give cereal or another starchy food mixed, if possible, with pulses, vegetables, and meat or fish. Add 1 or 2 teaspoonfuls of vegetable oil to each serving.
   - Give fresh fruit juice or mashed banana to provide potassium.
   - Give freshly prepared foods. Cook and mash or grind food well.
   - Encourage the child to eat, offer food at least 6 times a day.
   - Give the same foods after diarrhoea stops, and give an extra meal each day for two weeks.
3. **TAKE THE CHILD TO THE HEALTH WORKER IF THE CHILD DOSE NOT GET BETTER IN 3 DAYS OR DEVELOPS ANY OF THE FOLLOWING :**
   - Many watery stools
   - Repeated vomiting
   - Marked thirst
   - Eating or drinking poorly
   - Fever
   - Blood in the stool

CHILDREN SHOULD BE GIVEN ORS SOLUTION AT HOME, IF:

- *They have been on Treatment Plan B or C*
- *They cannot return to the health worker if the diarrhoea gets worse.*
- *It is national policy to give ORS to all children who see a health worker for diarrhoea.*

IF THE CHILD WILL BE GIVEN ORS SOLUTION AT HOME, SHOW THE MOTHER HOW MUCH ORS TO GIVE AFTER EACH LOOSE STOOL AND GIVE HER ENOUGH PACKETS FOR 2 DAYS:

Age	Amount of ORS to give after each loose stool	Amount of ORS to provide for use at home
Less than 24 months	50 - 100 ml	500 ml/day
2 up to 10 years	100 - 200 ml	1000 ml/day
10 years or more	As much as wanted	2200 ml/day

- Describe and show the amount to be given after each stool using a local measure.

SHOW THE MOTHER HOW TO MIX ORS.

SHOW HER HOW TO GIVE ORS:

- Give a teaspoonful every 1-2 minutes for a child under 2 years.
- Give frequent sips from a cup for an older child.
- If the child vomits, wait 10 minutes. Then give the solution more slowly (for example, a spoonful every 2-3 minutes).
- If diarrhoea continues after the ORS packets are used up, tell the mother to give other fluids as described in the first rule above or return for more ORS.

TREATMENT PLAN B
TO TREAT DEHYDRATION

APPROXIMATE AMOUNT OF ORS SOLUTION TO GIVE IN THE FIRST 4 HOURS:

Age *	Less than 4 months	4 - 11 months	12 - 23 months	2 - 4 years	5 - 14 years	15 years or older
Weight	Less than 5 kg	5 - 7.9 kg	8 - 10.9 kg	11 - 15.9 kg	16 - 29.9 kg	30 kg or more
in ml	200-400	400-600	600-800	800-1200	1200-2200	2200-4000
in local measure						

* Use the patient's age only when you do not know the weight. The approximate amount of ORS required (in ml) can also be calculated by multiplying the patient's weight (in kg) times 75.

- If the child wants more ORS than shown, give more.
- Encourage the mother to continue breast-feeding.
- For infants under 6 months who are not breast-fed, also give 100-200 ml clean water during this period.

OBSERVE THE CHILD CAREFULLY AND HELP THE MOTHER GIVE ORS SOLUTION:

- Show her how much solution to give her child.
  Show her how to give it - a teaspoonful every 1-2 minutes for a child under 2 years,
- frequent sips from a cup for an older child.
- Check from time to time to see if there are problems.
- If the child vomits, wait 10 minutes and then continue giving ORS, but more slowly, for example, a spoonful every 2-3 minutes.
- If the child's eyelids become puffy, stop ORS and give plain water or breast milk. Give ORS according to Plan A when the puffiness is gone.

AFTER 4 HOURS, REASSESS THE CHILD USING THE ASSESSMENT CHART. THEN SELECT PLAN A, B, OR C TO CONTINUE TREATMENT.

- If there are **no signs of dehydration**, shift to plan A. When dehydration has been corrected, the child usually passes urine and may also be tired and fall asleep.
- If signs indicating **some dehydration** are still present, repeat plan B, but start to offer food, milk and juice as described in plan A.
- If signs indicating **severe dehydration** have appeared, shift to plan C.

IF THE MOTHER MUST LEAVE BEFORE COMPLETING TREATMENT PLAN B:

- Show her how much ORS to give to finish the 4- hour treatment at home.
- Give her enough ORS packets to complete rehydration, and for 2 more days as shown in plan A.
- Show her how to prepare ORS solution.
- Explain to her the three rules in plan A for treating her child at home:
  - to give ORS or other fluids until diarrhoea stops
  - to feed the child
  - to bring the child back to the health worker, if necessary.

USE OF DRUGS
FOR CHILDREN WITH DIARRHOEA

- ANTIBIOTICS should ONLY be used for dysentery and for suspected cholera cases with severe dehydration. Otherwise, they are ineffective and should NOT be given.
- ANTIPARASITIC drugs should ONLY be used for:
  - Amoebiasis, after antibiotic treatment of bloody diarrhoea for **Shigella** has failed or trophozoites of **E. histolytica** containing red blood cells are seen in the faeces.
  - Giardiasis, when diarrhoea has lasted at least 14 days and cysts or trophozoites of Giardia are seen in faeces or small bowel fluid.
- ANTIDIARRHOEAL DRUGS and ANTIEMETICS should NEVER be used. None has proven practical value. Some are dangerous.

TREATMENT PLAN C
TO TREAT SEVERE DEHYDRATION QUICKLY

FOLLOW THE ARROWS. IF ANSWER "YES", GO ACROSS. IF "NO", GO DOWN

START HERE

Can you give intravenous (IV) fluids immediately? — YES →

- Start IV fluids immediately. If the patient can drink, give ORS by mouth while the drip is set up. Give 100 ml/kg Ringer's Lactate Solution (or, if not available, normal saline), divided as follows:

Age	First give 30 ml/kg in:	Then give 100 ml/kg in:
Infants (Under 12 months)	1 hour *	5 hours
Older	30 minutes *	2 ½ hours

* Repeat once if radial pulse is still very weak or not detectable.

- Reassess the patient every 1-2 hours. If hydration not improving, give the IV drip more rapidly.
- Also give ORS (about 5 ml/kg/hour) as soon as the patient can drink: usually after 3-4 hours (infants) or 1-2 hours (older patients).
- After 6 hours (infants) or 3 hours (older patients), evaluate the patient using the assessment chart. Then choose the appropriate Plan (A, B or C) to continue treatment.

NO ↓

Is IV treatment available nearby, (within 30 minutes)? — YES →

- Send the patient immediately for IV treatment.
- If the patient can drink, provide the mother with ORS solution and show her how to give it during the trip.

NO ↓

Are you trained to use a naso-gastric (NG) tube for rehydration? — YES →

- Start rehydration by tube with ORS solution: Give 20ml/kg/hour for 6 hours (total of 120 ml/kg).
- Reassess the patient every 1-2 hours:
  - If there is repeated vomiting or increasing abdominal distension, give the fluid more slowly.
  - If hydration is not improving after 3 hours, send the patient for IV therapy.
- After 6 hours, reassess the patient and choose the appropriate Treatment Plan.

NO ↓

Can the patient drink? — YES →

- Start rehydration by tube with ORS solution: Give 20 ml/kg/hour for 6 hours (total of 120 ml/kg).
- Reassess the patient every 1-2 hours:
  - If there is repeated vomiting, give the fluid more slowly.
  - If hydration is not improving after 3 hours, send the patient for IV therapy.
- After 6 hours, reassess the patient and choose the appropriate Treatment Plan.

NO ↓

URGENT: Send the patient for IV or NG treatment

NOTES:

- If possible, observe the patient at least 6 hours after rehydration to be sure the mother can maintain hydration giving ORS solution by mouth.
- If the patient is above 2 years and there is cholera in your area, give an appropriate oral antibiotic after the patient is alert.

WORLD HEALTH ORGANIZATION
Programme for Control of Diarrhoeal Disease

MANAGEMENT OF THE PATIENT WITH DIARRHOEA

USE THIS CHART FOR PATIENTS WITH:

- loose or watery stools
- loose stools with blood

1992

FIRST, ASSESS YOUR PATIENT FOR DEHYDRATION

	A	B	C
1. LOOK AT: CONDITION	Well, alert	* Restless, irritable *	* Lethargic or unconscious; floppy *
EYES	Normal	Sunken	Very sunken and dry
TEARS	Present	Absent	Absent
MOUTH and TONGUE	Moist	Dry	Very dry
THIRST	Drinks normally, not thirsty	* Thirsty, drinks eagerly *	* Drinks poorly or not able to drink *
2. FEEL: SKIN PINCH	Goes back quickly	* Goes back slowly *	* Goes back very slowly *
3. DECIDE:	The patient has NO SIGNS OF DEHYDRATION	If the patient has two or more signs including at least one * sign *, there is SOME DEHYDRATION	If the patient has two or more signs including at least one * sign *, there is SEVERE DEHYDRATION
4. TREAT:	Use Treatment Plan A	Weigh the patient, if possible, and use Treatment Plan B	Weigh the patient and use Treatment Plan C URGENTLY

THEN, FOR OTHER PROBLEMS

IF BLOOD IS PRESENT:

- Treat for 5 days with an oral antibiotic recommended for Shigella in your area.
- Teach the mother to feed the child as described in Plan A.
- See the child again after 2 days if:
  - under 1 year of age
  - initially dehydrated
  - there is still blood in the stool
  - not getting better
- If the stool is still bloody after 2 days, change to a second oral antibiotic recommended for Shigella in your area. Give it for 5 days.

IF DIARRHOEA HAS LASTED AT LEAST 14 DAYS:

- Refer to hospital if:
  - the child is under 6 months old
  - dehydration is present. (Refer the child after treatment of dehydration.)
- Otherwise, teach the mother to feed her child as in Plan A, except:
  - give only half the usual amount of milk, or replace milk with a fermented milk product, such as yoghurt.
  - assure full energy intake by giving 6 meals a day of thick cereal and added oil, mixed with vegetables, pulses, meat, or fish.
- Tell the mother to bring the child back after 5 days:
  - if diarrhoea has not stopped, refer to hospital.
  - if diarrhoea has stopped, tell the mother to:
  - use the same foods for the child's regular diet.
  - after 1 more week, gradually resume the usual animal milk.
  - give an extra meal each day for at least 1 month.

IF THE CHILD HAS SEVERE MALNUTRITION:

- Do not attempt rehydration; refer to hospital for management.
- Provide the mother with ORS solution and show her how to give 5 ml/kg/hr during the trip.

IF THE CHILD IS UNDER 2 MONTHS OF AGE:

- Rehydrate as necessary. If there is fever (38° C or above) after rehydration, refer to hospital. Do not give paracetamol or an antimalarial.

IF THE CHILD IS 2 MONTHS OF AGE OR OLDER:

- If temperature is 39° C or above, give paracetamol.
- If there is falciparum malaria in the area, and the child has any fever (38° C or above) or history of fever in the past 5 days, give an antimalarial (or manage according to your malaria programme recommendation).

TREATMENT PLAN A
TO TREAT DIARRHOEA AT HOME

USE THIS PLAN TO TEACH THE MOTHER TO:

- Continue to treat at home her child's current episode of diarrhoea.
- Give early treatment for future episodes of diarrhoea.

EXPLAIN THE THREE RULES FOR TREATING DIARRHOEA AT HOME:

1. **GIVE THE CHILD MORE FLUIDS THAN USUAL TO PREVENT DEHYDRATION:**
   - Use recommended home fluids. These include: ORS solution, food-based fluids (such as soup, rice water, and yoghurt drinks) and plain water. Use ORS solution for children described in the box below. (Note: If the child is under 6 months old and is not yet taking solid food, give ORS solution or water rather than a food-based fluid).
   - Give as much of these fluids as the child will take. Use the amounts shown below for ORS as a guide.
   - Continue giving these fluids until the diarrhoea stops.
2. **GIVE THE CHILD PLENTY OF FOOD TO PREVENT MALNUTRITION:**
   - Continue to breast-feed frequently.
   - If the child is not breast-fed, give the usual milk.
   - If the child is 6 months or older, or already taking solid food:
   - Also give cereal or another starchy food mixed, if possible, with pulses, vegetables, and meat or fish. Add 1 or 2 teaspoonfuls of vegetable oil to each serving.
   - Give fresh fruit juice or mashed banana to provide potassium.
   - Give freshly prepared foods. Cook and mash or grind food well.
   - Encourage the child to eat, offer food at least 6 times a day.
   - Give the same foods after diarrhoea stops, and give an extra meal each day for two weeks.
3. **TAKE THE CHILD TO THE HEALTH WORKER IF THE CHILD DOSE NOT GET BETTER IN 3 DAYS OR DEVELOPS ANY OF THE FOLLOWING:**
   - Many watery stools
   - Repeated vomiting
   - Marked thirst
   - Eating or drinking poorly
   - Fever
   - Blood in the stool

CHILDREN SHOULD BE GIVEN ORS SOLUTION AT HOME, IF:

- *They have been on Treatment Plan B or C*
- *They cannot return to the health worker if the diarrhoea gets worse.*
- *It is national policy to give ORS to all children who see a health worker for diarrhoea.*

IF THE CHILD WILL BE GIVEN ORS SOLUTION AT HOME, SHOW THE MOTHER HOW MUCH ORS TO GIVE AFTER EACH LOOSE STOOL AND GIVE HER ENOUGH PACKETS FOR 2 DAYS:

Age	Amount of ORS to give after each loose stool	Amount of ORS to provide for use at home
Less than 24 months	50 - 100 ml	500 ml/day
2 up to 10 years	100 - 200 ml	1000 ml/day
10 years or more	As much as wanted	2200 ml/day

- Describe and show the amount to be given after each stool using a local measure.

SHOW THE MOTHER HOW TO MIX ORS.

SHOW HER HOW TO GIVE ORS:

- Give a teaspoonful every 1-2 minutes for a child under 2 years.
- Give frequent sips from a cup for an older child.
- If the child vomits, wait 10 minutes. Then give the solution more slowly (for example, a spoonful every 2-3 minutes).
- If diarrhoea continues after the ORS packets are used up, tell the mother to give other fluids as described in the first rule above or return for more ORS.

Control of Diarrheal Diseases CDD:

Objectives By the end of this lecture you will be able to:
Define and classify diarrhea Identify the level of dehydration according to the CDD program adopted by WHO Follow the guidelines of managing a child with diarrhea

Control of Diarrheal diseases (CDD)
Diarrhea: Passage of liquid or watery stool for at least 3 times during 24 hours. Consistency is more important than frequency. Breast fed infants usually pass semi-solid, pasty and yellow stools. Sometimes, they pass stool after each breast feed. This is not diarrhea.

Control of Diarrheal diseases (CDD)
Acute which lasts for less than 14 days

Persistent which lasts for 14 days or longer

Dysentery when there is blood in the stool Either amoebic or bacillary

Control of Diarrheal diseases (CDD)
Facts The 500,000,000 children under 5 y of age are the major victims of diarrhea, It is estimated that U5 children may develop 1-12 episodes (attacks) of diarrhea per year, This will lead to growth failure & complications.Annually3,000,000 children die from diarrhea all over the world. This means 6 children per minute. Impact A high percentage of hospital beds are occupied by children with diarrhea usually present at the late stage of severe dehydration, which requires admission to hospital, professional care, drugs, fluids, giving sets, etc. (very high cost).The prognosis is usually bad probably ending in death.

Causative Agents; Viruses, Bacteria & Protozoa
Contributing Factors: unclean Water (Mothers & Kids), Dirty Hands, Spoilt Food (not well preserved)

Control of Diarrheal Diseases (CDD)
growth retardation under weight Malnutrition 25gm loss of weight for each day of diarrhea

Causes of weight loss:

Reduced absorption,

Reduced food intake,

Catabolic losses,

Reduced immunity leading to further episodes of diarrhea

Dehydration is a protective mechanism.

Diarrhoeais a protective mechanism.It washes away micro-organisms and toxins from the gastro-intestinal tract.It is usually self limiting and is not a killer.DehydrationIs the killerIt is a defence mechanism where the body will increase peristalsis & fluid loss.The amount of fluid in a child is limited & this will lead to a fluid- electrolyte deficit".Is a deficit in water and electrolytes (Sodium, Potassium, Chloride and Bicarbonate) resulting from losses in stool, vomiting, urine, fever, sweat and breathing. When these losses are not adequately replaced, this deficit will develop.Aim is to assessDegree of dehydration; No dehydration, some dehydration and severe dehydration.Clinical type of diarrhea; Acute watery, Acute bloody or Persistent diarrheaNutritional statusConcurrent illnessesImmunization status

Clinical type of diarrhea

Acute watery Loose or watery stools without visible blood, Duration less than 14 days (usually 5-7 days).

Acute bloody Loose or watery stools with visible red blood, Duration less than 14 days.

Persistent diarrhea Loose or watery stools with or without visible blood, Duration 14 days or more

Assessment of Diarrhea cases for dehydration

Classification Sign **C** **B** **A**

General Condition: Lethargic, Unconscious Restless, Irritable Well,

Moist Alert Sunken*Absent Very Dry Sunken *Dry , Normal

Eyes Tears Mouth & Tongue.

Thirst Unable to drink, Eager to drink, Drinks normally

Skin pinch . Goes Back Very Slowly (2 or more second), (1 sec), Goes Back Quickly

Severe Dehydration, Some dehydration, No Dehydration Plan C (Hospital) Plan B (PHC) Plan A (Home)Treatment

Assessment of Diarrhea cases for dehydration

Treatment plan Estimated fluid deficit Loss in body weight Degree of Dehydration:

A< 50 ml/kg< 5 % **No signs of dehydration.**

B 5-10 ml/kg % **Some dehydration**

C >100ml/kg >10 % **Severe dehydration**

In a diarrhea case, sometimes we don't have the **4 signs** in the same category. Two signs in the category, are enough to classify the case. E.g. 1 sign in A & 1 sign in B + 2 signs in C, so we classify as C.

Treatment plans; Plan A

The aim is to prevent dehydration from occurring. The steps are:

Give extra fluid: ORS (Oral Dehydration Solution) & home fluids. Continue feeding of children (breast or other).Teach the mother: How to prepare and give ORS (1 litre of water "2 milk bottles or 4 bottles of Coke" then we add the sachet & give by cup & spoon or by cup directly, to be used within 24 hr of preparation, "she must discard what remains after 24h i.e throw it away", to give him ml every time the child passes stool. Signs of dehydration & the danger signs by showing her pictures of the main signs of dehydration & telling her to bring her child immediately to the health center if such signs occur.

Treatment plans; Plan B

The aim is to correct dehydration. The steps are: Give ORS in the health center: Child's weight (kg) x 75 ml = volume given over a 4 hr period. Assess every hour. Continue feeding or breast feeding. Give ml of clean water. (for Bottle fed) Teach mother to prepare & give ORS correctly (cup and spoon), as in plan A. Assess every hour. If the child vomits the ORS, wait for 10 minutes and then restart giving him the solution slowly. Reassess after four hours, classify according to the hydration status, and use the appropriate plan accordingly.

Note: Puffiness of the face & eyes is a sign of over hydration. In that case; Stop ORS, give fluids that doesn't contain much salt, give the fluid slowly& send the child for home treatment when puffiness has gone.

Role of Breast feeding throughout an episode of diarrhea: Reduce the severity & duration Reduce the risk of dehydration Reduce the risk of diarrhea worsening nutritional status.

Treatment plans; Plan C

The aim is to correct dehydration urgently (immediately).

Route: Intra-Venous or Naso-Gastric tube (we have to act quickly) In IV: give Ringer's lactate solution. If it is not available, use normal saline. Calculate the amount of fluid using the following formula: Weight (kg) x 100ml over a period of 3 hours for children over the age of one year, and over 6 hours for infants, according to the following table:

Amount of IV fluid/unit time (100ml/ kg):

According to Age:: First 30 ml/kg <1 year through 1h and Second 70ml/kg through 5h

First 30 ml/kg >1 year through 30 min and Second 70ml/kg through 2 hrs 30 mins .

Note: DO NOT attempt Naso-Gastric tube as it is not practiced in this country. The steps are: Reassess every hour, if no improvement, give fluid more rapidly. If the patient can drink, give ORS in 5ml/kg body weight/hr Reassess after completion, classify according to the hydration status & choose the appropriate plan accordingly.

Oral Rehydration Solution

Composition: Sodium chloride: 3.5 gm, NaHCO3: 2.5 gm, KCl: 1.5 gm, Glucose: 20 gm, In 1000ml (1litre) of water. Some replace NaHCO3 by 2 gm Tri-sodium Citrate Di-hydrate which lessens vomiting, is tastier and more stable in humid and hot areas.

Advantages of ORS: Cheap, effective and easy to give at home by the mother. This is why 95% of the cases are treated by ORS, as children will not develop dehydration, when they get diarrhea. Preparation of ORS: The water should be boiled and cooled before the powder is added to avoid the loss of bicarbonate, and changes of concentration. In winter, warm the solution to 40oC to increase acceptability, increase the rate of absorption, decrease vomiting & decrease the risk of a drop in the body temperature when large volumes are consumed.

If **no ORS is available** we use home prepared fluids or household food solutions, rice water, soups , fruit juices, salt and sugar solution (one teaspoon of salt + one table spoon of sugar).

Diarrhea case fatality rate has decreased a lot after the introduction of the ORS, due to the prevention of dehydration.

Management of Chronic (Persistent) Diarrhea
child is under 6 months or is dehydrated Refer to the hospital, where dehydration is corrected and the case is fully assessed. child is over 6 months and not dehydrated- Reassess in 5 days. If diarrhea persists refer to hospital. If diarrhea has stopped, resume the usual animal milk & give an extra meal every day for one month, use growth charts.- Increase energy intake: 6 meals per day of thick cereals, added oils or fat, vegetables, fish or meat.- Dilute any animal milk with an equal volume of water or replace with fermented milk products such as yogurt.- The management is mainly dietary.

Management of Blood in Stool
Bacillary Dysentery Severe clinical picture GSE : no amoebic trophozoites Co-trimoxazol or antibacterial of choice Amoebic Dysentery GSE: amoebic trophozoites are seen symptoms are less severe, Metronidazole (Flagyl)

Drugs not to be used for diarrhoea
Anti-bacterials: Most cases are viral. Antibacterial are only used when there is lab evidence of bacterial infections (mainly cholera and bacillary dysentery). They will eventually lead to secondary infection due to the inhibition of the growth of the normal flora.

Anti-protozoal: Used only when there is lab evidence of amoebic dysentery or giardiasis. Mycostatin: Monilia is a normal inhabitant of the GIT. Mycostatin is only given when there is oral thrush or anal moniliasis.

Anti-motility agents and anti-spasmodics: As they may cause paralytic ileus in children. Pectocaolines: Will coat the GIT, allow colonization of the GIT bacteria with bacteria and lead to persistent diarrhea.

Anti-emetics: May cause CNS symptoms.

Control of diarrheal diseases

Objectives of lecture □ Objectives, targets and strategies of CDD □ Importance of the National CDD Program □ Types of Diarrhea □ Symptoms & Signs of Diarrhea □ Assessment of Degree of Dehydration □ Diarrhea treatment plan given in WHO charts

Disease Burden of Diarrhea □ 2nd leading cause of death in under 5 year olds □ Each year diarrhea kills 760, 000 children under 5 □ Globally there are 1.7 billion cases of diarrhea each year □ Diarrhea is the leading cause of malnutrition in children under 5 year of age

Objectives of the National Program for Control of Diarrheal Diseases:

Reduction of:

I. Mortality due to diarrheal diseases
II. Morbidity due to diarrheal diseases
III. Report of Hospital admissions due to diarrhea
IV. Number of outbreaks reported in an year

Strategies:

I. **Implementation of** standard case management at all hospitals
II. Train Hospital and PHC staff for prevention and control of diarrhea
III. Develop & print IEC material for social mobilization
IV. Strengthen surveillance of diarrhoeal diseases and outbreak investigation
V. Strengthen laboratory surveillance(monitoring of organism)
VI. Improve environmental sanitation (safe drinking water and sanitary latrines)

□ Strategies in using ORS & Rehydration:

I. Field coordination ♣ Operational "Rehydration Centers" in healthcare stations
II. Production and Distribution ♣ ORS "Oral Rehydration Salts" have to be produced and sent to health stations ♣ To be made available as OTC
III. Mass Media ♣ Create awareness and demand for ORS/ rehydration solution

IV. Training ♣ Producing materials, programs to educate and train doctors, nurses and related healthcare professionals

V. Research and Evaluation ♣ Providing grants and allowances for those involved in research and also evaluating the effects of ORS in the management of diarrhea

Importance of the National Program for Control of Diarrheal Diseases

Less **Mortality rate of** under 5 children (per 1000 live births) Reasons for reduced mortality • Breast feeding • Maternal education • Vaccination • Safe drinking water • ORS

□ **Managing and** preventing diarrhea is most important

What is diarrhea? Passage of unusually loose or watery stools usually at least three times in a 24 hour period. However it is the consistency of the stools rather than the number that is most important.

Types of diarrhea :

1. Acute watery diarrhea (including cholera)
2. Acute bloody diarrhea (dysentery)
3. Persistent diarrhea (lasting 14 days or more)
4. Diarrhea with severe malnutrition

Causes 1. Infection □ Feco-oral transmission □ Contaminated food or water □ Viral, bacterial and parasitic □ **Viruses** : Rotavirus Enterovirus **Bacteria** : E. coli Shigella Camylobacter jejuni V. Cholerae Salmonella (non typhoidal) **Protozoal** : Giardia duodenalis Entamoeba Histolytica Cryptosporidium

2. Malnutrition □ Diarrhea makes the small intestinal villi damaged and unable to absorb nutrients and thus making them prone to more infections (Vicious Cycle)

Symptoms □ Fever □ Loose stools (frequency and consistency) □ Water/mucoid/blood stained □ Vomiting and nausea □ Generalized body ache □ Reduced UOP (<5 times per day/<5ml/kg/hr) □ Dizziness/feeling unwell

Signs □ Feberile (>98.4 F) □ Dehydrated (eyes, tongue and skin tugor) □ CRFT<2 seconds □ Pulse rate (tachycardia) □ BP (diastolic rise, and then systolic fall) □ Pulse pressure narrowing (<20mmhg) □ Altered level of consciousness □ Fits

Assessment of Dehydration

Evolution of CVS clinical signs with dehydration:

No Dehydration
Some Dehydration
Severe Dehydration
Normal Pulse
Tachycardia
Absent pulse
Normal Pressure
Diastolic pressure rises
Systolic drops -> unrecordable pressure
Fluid Deficit <5% of BW or
50 ml/kg 5-10% of BW or
50- 100ml/kg >10% of BW or

100ml/kg www.doctordinusha.info

Oral Rehydration Salts (Jeevani) □ Water absorption happens in the small intestine via an osmotic gradient created by Na and Cl ions

□ **ORS contains** constituents which increase the absorption of water, replace potassium lost in stools and correct acidosis

□ NaCl
□ KCl
□ Na Citrate (counter acidosis)
□ Glucose

Na 75mmol/l
Cl 65mmol/l
Glucose 75mmol/l
K 20mmol/l
Citrate 10mmol

Preparation and storage of ORS □ Add all contents to 1 l of boiled water (some packets can be dissolved in less amount of water) □ Avoid adding extra sugar or salt □ Once prepared keep only for 24 hours

Principles of Diarrhea Management:

□ Correct dehydration
□ Maintenance of hydration
□ Provide electrolytes
□ Correct acidosis
□ Antibiotic therapy when needed
□ Re colonization with normal flora

Special Precautions:

□ **Assess** every 4 hours
□ Stop it if the child is having swollen eyelids (continue with breast milk and plain water)
□ Don't give if vomiting
□ Don't give if lethargic or drowsy (take the child to the hospital)

Managing a child/adult with diarrhea **without dehydration**

□ Main aim is to replace the ongoing fluid and electrolyte losses and to supply the daily maintenance
□ Ongoing loss : ♣ Per each loose motion give 100-200 ml of ORS **(<2yr old=100ml, >2yr old=200, teen = as much as they want)**

The maintenance is calculated with the Holliday and Segar equation

Managing a child/adult with diarrhea **with some dehydration**

□ Better to be managed at the hospital setting
□ The fluid loss has to be replenished by ORS, calculated as, Wt(Kg) * 75ml/kg In initial 4 hours
□ Reassessment is needed to decide on further Mx.

□ The maintenance is calculated with the Holliday and Segar equation

Managing a child/adult with diarrhea **with severe dehydration**

□ Will need iv fluids ASAP. (Give 100ml/kg)

According to Age:: **First 30 ml/kg** <1 year through 1h and **Second 70ml/kg** through 5h

First 30 ml/kg >1 year through 30 min and **Second 70ml/kg** through 2 hrs 30 mins →

Further points in management:

1. Oral fluids
   - □ ORS
   - □ Rice Kanjee
   - □ Rice water (salted)
   - □ King coconut water
   - □ Soup (vegetable/chicken soup-salted)
2. Continue breast feeding
3. Probiotic/Prebiotic mixtures (Bifilac/Prezolac)
4. Multivitamins with Zinc salts
5. **Antibiotics if** suspecting bacterial or dysentery (furazolidone/cephalosporin)
6. Continue with normal feeds ♣ Yoghurt ♣ Protein rich food

Preventive measures:

1. **Hand** hygiene
2. Care in food preparation
3. Safe drinking water
4. Sanitary latrines
5. Preventing malnutrition www.doctordinusha.info

Summary □ Diarrhea is a real problem, especially for children (<5 yr olds)

□ Oral Rehydration Salts (ORS) are a major find in combating diarrheal diseases

□ Proper diagnosis and assessment of dehydration is required

□ Proper rehydration method is needed

□ Proper supportive therapy is needed

□ EIC methodologies are needed (Not limited to papers, radio or TV now)

→ Managment in hospital of plan C IV Fluid

④ ...20ml/Kg → bolus mean quick IV according to age (Type of Saline) 1/3 or 1/5

→ 1st 10kg of body wt x 100 → —— ①

2nd 10kg of body wt x 50 → —— ②

ماتبقى the remenant of b.w x 20 → —— ③

then add ①+②+③ then subtract ④ → result given through 24 hrs (below)

رقم الطفل
رقم الاسرة

جمهورية العراق
وزارة الصحة
خدمات رعاية الام والطفل

مركز الرعاية الصحية الاولية في / .....

استمارة الطفل /.....

لون الحرف باللون الاحمر كون الطفل يحتاج الى رعاية خاصة

R

اسباب العناية الخاصة للطفل

- 1
- 2
- 3

عنوان الطفل : محافظة .....مدينة ..... حي ..... محلة ..... زقاق ..... رقم الدار ..... هاتف .....

عند التسجيل العمر الطول الوزن قصيلة الدم و Rh للطفل للأم للأب .
وثبت مايلي : محيط الراس محيط الذراع

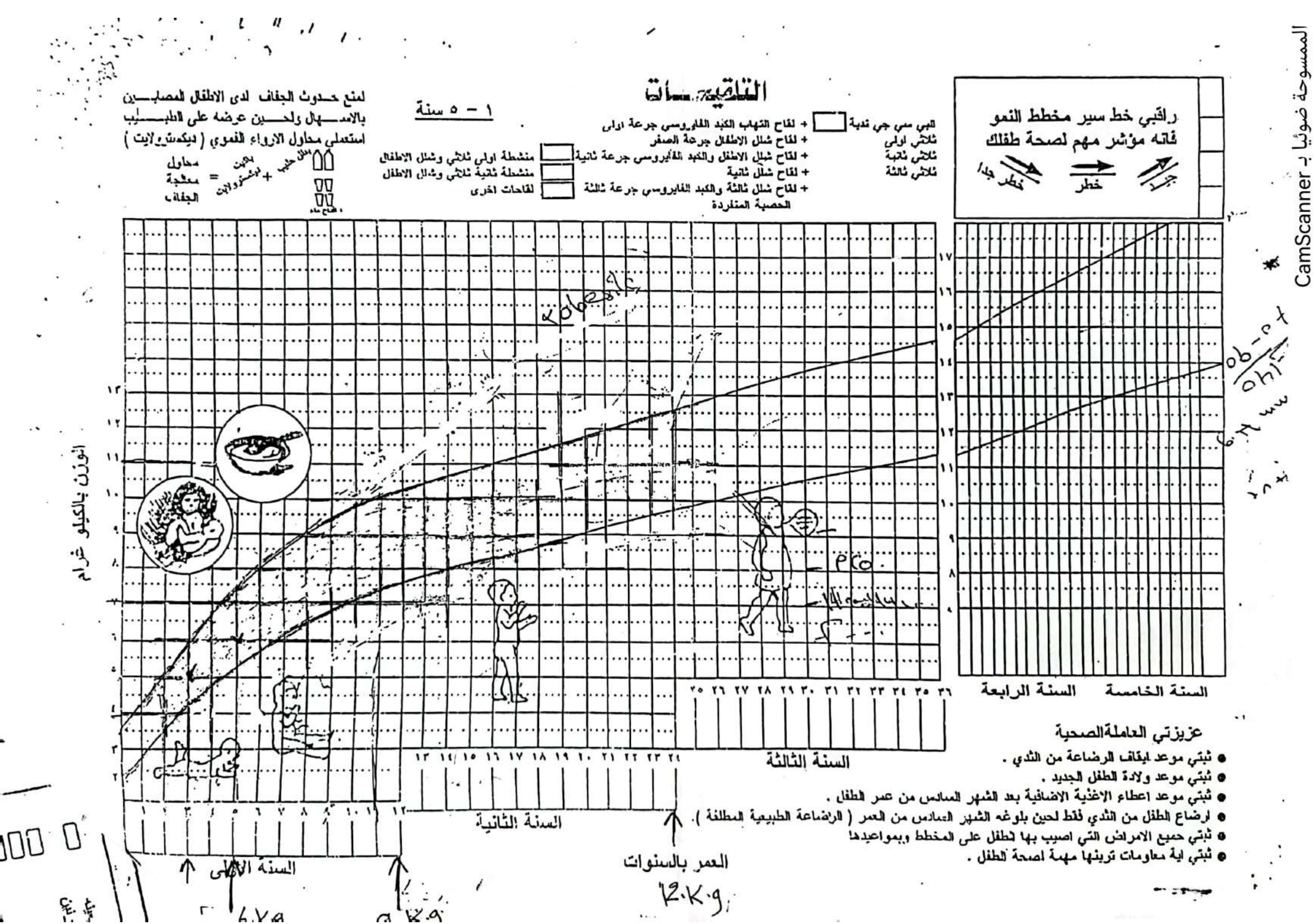
الجنس		
الاسم		
تاريخ الولادة		
نوع الولادة : طبيعية ☐ قيصريه ☐ سحب ملقط ☐ اخرى ☐		
مكان الولادة : بيت ☐ مستشفى ☐ اخرى ☐		
المولدة : جدة اهلية ☐ قابلة ماذونة ☐ ممرضة ☐ طبيب ☐		
مدة الحمل اسبوع		
طبيعة الحمل بدون مضاعفات ☐ تذكر		
مع مضاعفات ☐		
وزن الطفل عند الولادة كغم		
طول الطفل عند الولادة سم		

اسم الأم	العمر
اسم الأب	العمر
المستوى التعليمي للأم	المهنة
المستوى التعليمي للأب	المهنة
قرابة الأم بالأب نعم ☐ كلا ☐	
عدد الاطفال الاحياء ☐ عدد الاطفال الميتين ☐	
عدد الولادات الميتة ☐ عدد الاسقاطات ☐	
تسلسل الطفل في العائلة	
تشوهات خلقية للاطفال العائلة نعم ☐ كلا ☐	
تاريخ ولادة الطفل السابق	
تاريخ زواج الام	
هل تلقت العناية الصحية اثناء الحمل ؟ نعم ☐ كلا ☐	

اهم الامراض التي اصيب بها الطفل	

الفحص الاولي للطفل	
-General condition	
Fontanelle	
Reflexes	
Muscles	
Eyes	Ears
Mouth	Nose
Glands	
Chest	
Lungs	
Heart	
Liver	Spleen
Hernia	
Genetalia	
Skin	Hair
Hip dislocation	
Femoral pulses	
stream of urination	
Other notes	

Family History	
- Convulsion	- Hereditory
- T.B.	- Haemolytic
- Atopy	- Bleeding tendency
- Others	-Others



التطور النموذجي للطفل حديث الولادة

النظر + الحركة	السمع + الكلام
١شهر ١- يدور برأسه وعينيه نحو مصدر الضوء ٢- يراقب الأشخاص، يتتبع الأجسام المتحركة ٣- يتتبع الضوء الصادر من قلم ضوئي على بعد قدم واحد.	**١شهر** ١- يجفل عند سماع صوت مفاجيء، يتبسم، يرمش ويتصلب جسمه ويركز بعينه ٢- تتوقف حركته بصورة مؤقتة (يجمد) لمدة ٣-٥ ثوان عند سماعه صوت رنين الجرس على بعد ٣-٥ انج من الأذن ٣- يبكي بقوة عندما يجوع لو يكون غير مرتاح ٤- يبدي اهتماما بصوت الأشخاص عند الكلام أكثر من بقية الأصوات
٣شهر ١- يتتبع اللعبة المتدلية من جهة الى اخرى وبحدود (١٨٠ درجة) ويركز بنظره على مكانها بسرعة ٢- يكون الطفل منتبها جدا وينظر الى الوجوه باهتمام. ٣- يراقب حركة يديه ٤- يميز ثدي أمه ويكون متلهفا وفرحا عند رؤيته ٥- اليدان مفتوحتان وليست كما في الأسابيع الأولى حيث تكون مسدودة بقوة	**٣شهر** ١- لا تزال الأصوات العالية تزعجه ويرمش بعينه ويركز. ٢- يهدأ ويبتسم عند سماع صوت أمه ٣- يدير رأسه وعينيه باتجاه مصدر الصوت ٤- يمص أو يلعق شفتيه تهيئه لعملية الرضاعة ٥- يظهر الإثارة عند سماعه أصوات قريبة، خطوات الأقدام، دقات جرس.. الخ ملاحظة: يجفل الطفل الأطرش عند ظهور أمه بصورة مفاجئة بجانب السرير
٦شهر ١- يستطيع أن يعدل جسمه لرؤية بعض الاشياء بادارة رقبته للوراء او الانحناء لكي يرى الاشياء التي يود رؤيتها . ٢- تتحرك العينين بانسجام (أي حول في هذا العمر يعتبر غير طبيعي بصورة مؤكدة) ٣- يبتسم ويتاغى عندما يرى صورته في المرآة ٤- يحاول استرجاع الخرخاشة بعد إسقاطها. ٥- إذا كان في يديه مكعبا وأعطي مكعبا أخرا فانه يُسقط المكعب الاول ليمسك الثاني.	**٦شهر** ١- يستدير مباشرة وبانسجام نحو مصدر صوت أمه عبر الغرفة ٢- يتعرف الى نغمات نفسه والاخرين. يستجيب باصوات غنائية او باصوات او مقاطع لفظية منفردة او مزدوجة مثل آه، مو، كو، ادا، ماه. ٣- يُطبق او يخرج لسانه تقليدا للكبار ٤- يصرخ عند الانزعاج
٩شهر ١- ينتبه بالنظر بشدة للأشخاص والأشياء ٢- يلتقط الاشياء الصغيرة بأستعمال الأصابع والإبهام ٣- عندما يمسك مكعبين فانه يحاول جلبها معا أمام عينيه وكأنه يقارن بينهما ٤- يطيل المراقبة ويأهتمام للفعاليات والنشاطات على بعد ١٠-١٢ قدم	**٩شهر** ١- متلهف ومنتبه للأصوات اليومية. ٢- يلفظ بتأن محاولا محاورة الاخرين. ٣- يصرخ لجذب الانتباه ثم يصمت ثم يصرخ ثانية ٤- يُصدر صوتاً متكرراً ثابتاً مثل (ماما/ دادا/ بابا) ٥- يستجيب لبعض الاسئلة بالنظر مثل اين بابا؟ اين الساعة؟
١٢شهر ١- يستخدم إصبعي السبابة والإبهام لالتقاط الأشياء الصغيرة (مسكة الكماشة) ٢- ينظر في الاتجاه الصحيح للألعاب ٣- يبدأ بترك الاشياء بترو وتأن وليس مصادفة او عن غير قصد كما كان يفعل سابقا. ٤- يتعرف على الأشخاص المألوفين لديه ٥- يقوم بسحب ملابس الاخرين لجلب انتباههم اليه	**١٢شهر** ١- يتعرف ويستدير مباشرة عند ذكر اسمه ٢- يلفظ بعض الكلمات ذات معنى. ٣- يستطيع أن يفهم معنى بعض الأسئلة مثل (اين عينيك، اين حذائك، اين رأسك) ٤- قد يُقبل أو يُعطي الأشياء إلى الكبار عندما يطلب منه ذلك

ملاحظة: يرجى وضع علامة (صح) في المربع المناسب للفعل او النشاط الذي يؤديه الطفل وضمن فئته العمرية

الفحـــوص الدورية للطفل

التاريخ	الوزن	الطول	نوع التغذية	الملاحظات	موعد الزيارة القادمة	التاريخ	الوزن	الطول	نوع التغذية	الملاحظات	موعد الزيارة القادمة
٢/١١											

Child Care Services

It is an important part of MCH , it is conducted by the use of special chart for monitoring growth and development of child from birth up to five years of age ,intervention at any time to correct any health problem or disorder.

Steps of child Care

1. **Registration**
2. **History / data collection for the baby,(**name , sex ,age ,residence , date of birth , type of labor , place of labor , type of birth attendance , height, weight, blood group and Rh for baby and parents , duration of pregnancy by weeks, type of pregnancy, complication in pregnancy, weight of baby at birth, height of baby at birth
3. **History taking for parents**: name , age , educational level of parents , degree of relation between them , number of children a lives and dead ,number of congenital anomalies ,rule of baby in the family , date of last labor ,date of marriage , history of antenatal care.
4. **Medical and surgical history of the child.**
5. **Family history of (**convulsion, TB, Atop , hemolytic , hereditary, bleeding, others , Thalassemia
6. **Nutritional history** : type of feeding
7. **Vaccination history :** number of vaccine taken according to vaccine schedule.
8. **Examination of the child:**
   - **General exam : general condition, fontanel , reflexes, muscles ,eyes , ears, mouth, nose , glands ,skin and hair ,hip dislocation,**
   - **Systemic exam :chest, heart , abdomen ,liver and spleen, hernia, renal system ,stream of urine, anal orifice and others.**
9. **Put the child on growth chart:** which is defined as a chart that is used to monitor child growth and development and determine child nutrition and his vaccination program . it is consist of two

axes , the vertical one for the weight in Kg , while the horizontal for the age in month from one month up to five years of age.

Normal growth line of the child characterized by:

- It should be always ascending upward.
- It should be within the green area (safe area of growth)

Causes of abnormal growth and deviation of growth line from normal:

***causes of deviation of growth line above green area could be** (over consumption, hormonal or metabolic disorders, hereditary).

***causes of deviation of growth line below the green area mean the line becoming horizontal or descending downward (**infectious disease like ARI or DD, chronic disease like cardiac or renal or other , metabolic disorder , economic causes affect the family , social problems within the family as loss of parent , health problems of mother as medical or surgical or psychological problems.

Malnutrition : it is abnormal nutritional conditions result from either

1. Under nutrition .
2. Over nutrition.

NOTE : any serious health problem affect the child should be color the letter R with red which mean this child needs special care.

Last step is to arrange all the information collected (objective and subjective data) in the last table about routine child examination , and the date of next visit depend on date of vaccination or on need.

schedule of visit: every 2 months → 2Y
every 6 months → 5Y

NATIONAL A.R.I CONTROL PROGRAM

Introduction

- Definition of ARI..
- Worldwide, (ARIs) are a major cause of morbidity and mortality in emergencies especially in developing countries including PAKISTAN
- ARI responsible for 20% of childhood (< 5 years) Deaths ,90% from pneumonia.
- Six to eight respiratory tract infections per year (2-3years)
- 70% of which are upper respiratory infection, 30% are lower respiratory infections.

ARI control programme

- Reduce mortality of children < 5 years of age due to pneumonia
- Rationalize the use of antibiotics and other drugs in ARI
- Strategy:
  - standard case management of ARI
  - Immunization
  - Improved feeding practices esp. BF
  - Education of mothers

OBJECTIVES OF ARI control prog.

- To reduce mortality from ARI esp. from pneumonia
- To reduce inappropriate use of antibiotics and other drugs for the treatment of ARI in young children.

ARI control

- Improving the primary medical care services and developing better methods for early detection , treatment and prevention of acute respiratory infection is the best way to control ARI
- mortality rate due to pneumonia is reduced if treated correctly
- Education of mothers about pneumonia because compliance with treatment and seeking proper care when child suffers determine outcome of the disease

WHO recommendation for management

Of ARI

Clinical assesment

- History taking and management are very important
- Note :1)age
- 2)feeding habits
- 3)fever
- 4)convulsions
- 5)irregular breathing
- 6)history of treatment during the illness
- 7)activity

Physical examination

1: count the breaths in one minute

- Breathing count depends on the age of the child
- Count respiratory rate for a minute
- Fast breathing is present when RR is

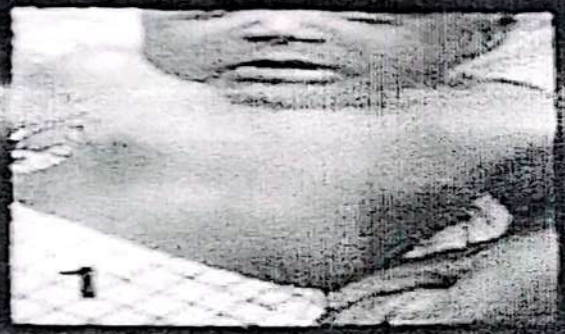
-60 breaths /min or more in a child less than two months of age

-50/min or more in child aged 2months upto 12 months

-40 breaths/min or more in a child aged 12 months upto 5 years

Chest indrawing

- Look for chest indrawing when child breaths IN
- Child has indrawing if the lower chest wall goes in when the child breaths IN
- Occurs when the effort required to breath in ,is much greater than normal



Stridor

- Harsh noise while breathing IN is stridor
- Occurs due to narrowing of trachea ,larynx or epiglottis
- These conditions often called croup

Wheeze

- A child with wheeze makes a soft whistling noise

OR

- shows signs that breathing OUT is difficult
- This is due to narrowing of the air passages

Fever

- Check for body temperature

Cyanosis

- Sign of hypoxia

Danger Signs

- PERSISTANT VOMITTING
- RELUCTANCE TO FEED
- CONVULSIONS

ASK ABOUT RISK FACTORS:

- Exposure to cold weather
- Hx of bith problems
- Poor nutritional status
- Early weaning
- Immunization
- Poor socio-economic status
- Parental smoking
- Chronic use of drugs (affect immunity)
- Family history

LOOK AND LISTEN

- Respiratory rate
- Tachypnea 3 months > 60
  3 months – 1 year > 50
  1year –4 years > 40
  >5y >20
- Chest indrawing
- Listen for stridor
- Listen for wheeze. Is it recurrent?
- Look for cyanosis
- See if the child is abnormally sleepy, difficult to wake, or restless
- Body temperature
- Signs of malnutrition (Marasmus. Kwashiorkor)

Malnutrition

- If malnutrition is present its high risk and case fatality rates are higher
- In severely malnourished:

1) children with pneumonia, fast breathing and chest indrawing may not be evident
2) Impaired or absent response to hypoxia and a weak or absent cough reflex
3) Careful evaluation and mangement

ARI control programmes

ARI control in children

- ARI is an episode of acute symptoms & signs resulting from infection of any part of respiratory tract & related structures
- Constitutes 22-66% of outpatients & 12-45% of inpatients
- In India: 10-50 children die per 10,000 episodes of ARI

ARI control programmes

- Crux of the program is to identify children with ARI at the community level by training the field workers to recognize easily & reliably identifiable clinical signs of ARI & early reference

WHO protocol comprises 3 steps:

1. Case finding & Assessment
2. Case Classification
3. Institution of appropriate therapy

Step 1: Case Finding & Assessment

- Cough + difficult breathing in children < 5 years age

- Fever is not an efficient criteria

Step 2: Case Classification

- *Children grouped into 2:*
  - Infants < 2months & Older children

- *Specific signs* to be looked: In younger children like feeding difficulty, lethargy, hypothermia, convulsions

In infant < 2 months

+ Pneumonia is diagnosed if RR 60/min with other clinical signs.

- All should be hospitalized

- All should receive IV medications
- Minimum duration of 10 days
- Combination of Ampicillin & Gentamicin

step 3:Institution of appropriate therapy

- Antibiotics

prevention of ARI

- Breast feeding infants exclusively (no other food or drinks, not even water) for the first six months breast milk has an excellent nutritional value and it contains the mothers antibodies which help to protect the infant from infections.

- Avoiding irritation of the respiratory tract by indoor air pollution, such as smoke from cooking fires; avoid the use of dried cow dung as fuel for indoor fires.
- Immunization of all children with the routine Expanded Programme on Immunization
- Feeding children with adequate amounts of varied and nutritious food to keep their immune system strong.

- Control the spread of respiratory bacteria by educating parents to avoid contact as much as possible between their children and patients who have ARIs.
- people with ARIs should cough or sneeze away from others, hold a cloth to the nose and mouth to catch the airborn droplets when coughing or sneezing.
- Immunization also increases control by reducing the reservoir of infection in the community and increasing the level of herd immunity.

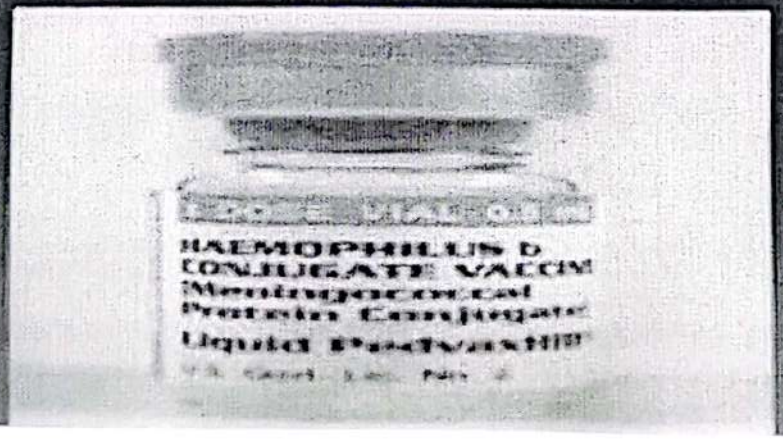
immunization

Measles Vaccine

- Pneumonia is a serious complication of measles
- Reducing the incidence of measles helps reduce death from pneumonia
- Live attenuated vaccine
- Freeze dried product
- 0,5 ml dose subcutaneously also effective in intramuscular injection
- Schedule: 9th month

HIB vaccine

- Haemophilus influenza B most important cause of death due to meningitis and pneumonia in developing countries
- Available for more than a decade
- Expensive
- Included in the IAP immunization schedule
- combined preparation with DPT and poliomyelitis
- Three or four doses are given dependin on type of vaccine
- Schedule : 6 ,10, 14 weeks booster dose 12-18 months
- Vaccine is not offered to children more than 24 months



Pneumococcal vaccine

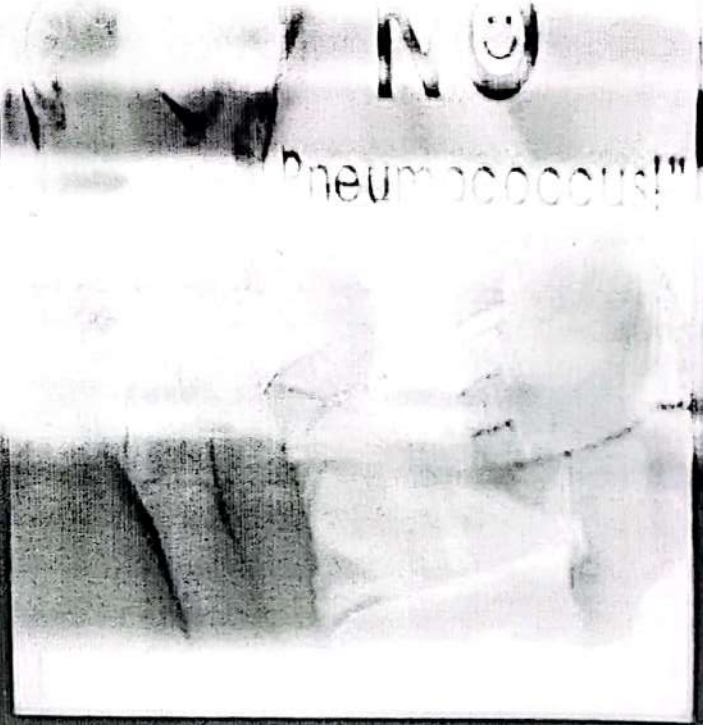
- PPSV23 polysaccharide non conjugated antigen of 23 serotypes against this infection

- children under 2 year aged immunocompromised do not respond well to this vaccine

- select groups - sickle cell disease, chronic Heart disease, DM, organ transplants, etc

- Dose - 0.5 ml

- Administration - intramuscular in the deltoid



■ Administration – intramuscular in the deltoid

Pcv-7: pneumococcal conjugate vaccine

- New vaccine suitable for infants and toddlers
- It is included in the IAP immunization schedule
- Induces a t- cell dependent immune response
- Prevents pneumococcal pneumonia and meningitis moderately effective against otitis media
- dose- 1)6,10,14 weeks , booster after 12 months

OR

- 2)2, 4,6 months and booster after 12 months
- administration-intramuscular

MANAGEMENT OF ARI
CHILDREN BELLOW 2 MONTHS

SIGNS	- Stopped feeding well - convulsion - Apnea sleepy - Stridor in calm child - wheeze - Fever, low body temp.	Sever chest [illegible] Fast Breathing	No sever chest Indrawing No fast breathing
Classify As:-	VERY SEVERE DISEASE	SEVEF PNEUMONIA	NO PNEUMONIA
TREATMENT	REFER URGENTLY	REFER URGENTL	ADVICE for HOME CARE
	KEEP WARM	KEEP WARM	
	GIVE FIRST DOSE OF ANTIBIOTIC	GIVE FIRST DOSE OF ANTIBIOTIC	EXPLAIN DANGER SIGNS

MANAGEMENT OF ARI

CHILD AGED 2 MONTHS UPTO 5 YEARS

SIGNS	NOT ABLE TO DRINK CONVULSIONS ABNORMALLY SLEEPY OR DIFFICULT TO WAKE STRIDOR IN A CALM CHILD SEVERE MALNUTRITION	FAST BREATHING CHEST INDRAWING NASALFLARING GRUNTING	FAST BREATHING ONLY NO CHEST INDRAWING	NO FAST BREATHING NO CHEST INDRAWING
CLASSIFY AS	VERY SEVERE DISEASE	SEVERE PNEUMONIA	PNEUMONIA	NO PNEUMONIA/ COLD & COUGH
TREATMENT	REFER URGENTLY GIVE FIRST DOSE OF ANTIBIOTIC TREAT FEVER, IF PRESENT TREAT WHEEZE, IF PRESENT	REFER URGENTLY GIVE FIRST DOSE OF ANTIBOTIC TREAT FEVER TREAT WHEEZE	ADVICE FOR HOME CARE GIVE ANTIBIOTIC TREAT FEVER TREAT WHEEZE	ASSESS AND TREAT EAR PROBLEM/ SORE THROAT TREAT FEVER TREAT WHEEZE

Prevention of ARI

- Health education.
- Keep child warm.
- Immunization.
- Nutrition.
- Prevent nearby smoking.
- Personal hygiene.
- Visit doctor.

Acute respiratory infection(ARI)

Acute respiratory infection is a serious infection that prevents normal breathing function. It usually begins as a viral infection in the nose, trachea (windpipe), or lungs. If the infection is not treated, it can spread to the entire respiratory system. Acute respiratory infection prevents the body from getting oxygen and can result in death. Person suffering from this condition needs medical assistance immediately. Also, acute respiratory infections are infectious, which means they can spread from one person to another. The disease is quite widespread. It is particularly dangerous for children, older adults, and people with immune system disorders. According to the World Health Organization (WHO), acute respiratory infections kill an estimated 2.6 million children annually every year worldwide.

Symptoms of Acute Respiratory Infection

The early symptoms of acute respiratory infection usually appear in the nose and upper lungs. Other symptoms include:

- congestion, either in the nasal sinuses or lungs
- runny nose
- cough
- sore throat
- body aches
- fatigue

If the disease advances, there may be high fever and chills. Other serious symptoms are

- difficulty breathing
- dizziness
- low blood oxygen level
- loss of consciousness

Potential Complications of Acute Respiratory Infection?

Complications of acute respiratory infection are extremely serious and can result in permanent damage and even death. They include:

- respiratory arrest
- respiratory failure
- congestive heart failure

Prevention of Acute Respiratory Infection

Most causes of an acute respiratory infection are not treatable. Therefore, prevention is the best method to ward off harmful respiratory infections. Practice good hygiene by doing the following:

- Wash hands frequently, especially after having been in a public place.
- Always sneeze into one's arm of the shirt or in a tissue. Although this may not ease one's symptoms, it will prevent the spreading of infectious diseases.
- Avoid touching one's face, especially eyes and mouth, to prevent introducing germs into one's system.

Acute Upper Respiratory Infection

upper respiratory tract includes the nose, throat, pharynx, larynx, and bronchi.the common cold is the most well-known URI. Other types of URIs include sinusitis, pharyngitis, epiglottitis, and tracheobronchitis. Influenza, on the other hand, isn't an URI because it's a systemic illness.

What causes acute upper respiratory infection?

Both viruses and bacteria can cause acute URIs:

Bronchitis

Inflammation of the bronchial tubes is bronchitis. The right and left bronchial tubes branch off from the trachea and go to the right and left lungs..

What are the symptoms of acute upper respiratory infection?

A Symptoms are caused by inflammation of the mucous membranes in the upper respiratory tract. Other symptoms include:

- fever
- fatigue
- headache
- pain during swallowing
- wheezing

How is acute upper respiratory infection diagnosed?

Tests that may be used to diagnose URIs are:

- Throat swab.
- Lateral neck X-rays.
- Chest X-ray. CT scan.

Acute respiratory infection (ARI)

A young baby under two months old

Category	Signs	Treatment
Very severe disease	-stop eating good food -Convulsions -Drowsiness with difficulty waking -Wheezing in breath -Low or high body temperature	-Immediately transfer the pt to the hospital -Keep the child warm -Give the first dose of the antibiotic

Category	Signs	Treatment
Severe pneumonia	-Severe chest suppression -Fast breathing 60/ min or more	-Immediately transfer the pt to the hospital -Keep the child warm -Give the first dose of the antibiotic -If pt transfer is not possible give antibiotic & observation

Category	Signs	Treatment
Cough or cold no pneumonia	-There is no severe chest suppression -Breathing is slow less than 60/min	Mothers advice to provide the following home care: -Consider heating the baby -Increased breastfeeding -Clean the nose if the food is difficult Quickly return to the hospital as: -Breathing become fast -Breathing become difficult - Difficulty eating -The infants disease has increase

Child from two months to five years

Category	Signs	Treatment
Very severe disease	-He can't drink -Drowsiness -Wheezing in a quiet child -Lack of nutrition	-Immediately transfer to the hospital - Give the first dose of the antibiotic -Treat of fever in any -Treat wheezing in any -I the risk of malaria , give an antimalaria

Category	Signs	Treatment
Severe pneumonia	-Chest suppression -Treat frequent wheezing in any	-Immediately transfer to the hospital - Give the first dose of the antibiotic -Treat of fever in any -Treat wheezing in any -If pt transfer is not possible give antibiotic & observation

Category	Signs	Treatment
Pneumonia	-There is no chest suppression -Breathing is fast(50/min or more if age 2months to 1year. 40/min if age 1year to 5 year)	- Mothers advice to provide the following home care -Give antibiotic -Treat of fever in any -Treat wheezing in any -Return the child to assess his condition ,or before that if his condition worsened

Category	Signs	Treatment
There is no pneumonia but cough& cold	-There is no chest suppression -There is no quick breathing(less50/min if age 2months to1year. Less 40/min if age 1year to 5year	-If the cough lasts more than a month ,going to hospital to assess the condition -Assess &treat ear & throat problems if any -Assess &treat other problems - Treat of fever in any -Treat wheezing in any

Reassess in two days for a child who gives an antibiotic

Signs	Bad situation -Unable to drink -There is suppression in the chest -Has other dangerous signs	No change in status	The situation improved -Breathing slower -Fever is less Improved eating
Treatment	-Immediately transfer to the hospital	The antibiotic changed or referred to hospital	Complete the antibiotic for 5 day

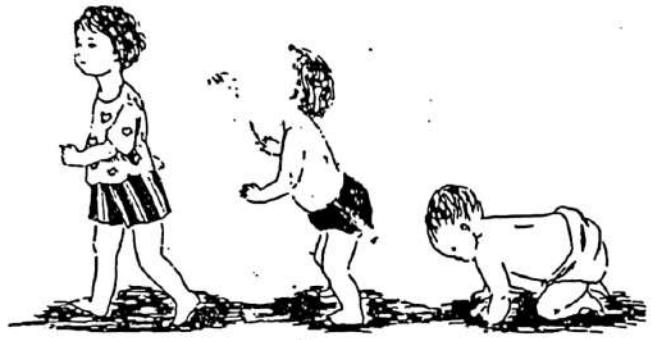
الرضيع الصغير

(دون شهرين من العمر)

العلامات:	• توقف عن التناول الجيد للطعام . • الاختلاجات . • تنفس غير طبيعي أو صعوبة في يقاظ . • صرير في الطفل الهادىء . • تأزيز أو • الحرارة أو انخفاض حرارة الجسم .	• لايوجد انقماع شديد للصدر و • التنفس غير سريع أقل من ٦٠/ الدقيقة
التصنيف:	مرض شديد جداً	لايوجد التهاب رئوي بل سعال أو زكام
المعالجة:	◄ حوّل فوراً إلى المستشفى . ◄ احفظ الطفل دافئاً . ◄ أعط الجرعة الأولى من المضاد الحيوي .	◄ انصح الأم بتوفير الرعاية المنزلية الآتية : ◄ مراعاة تدفئة الرضيع الصغير . ◄ الإكثار من الإرضاع من الثدي . ◄ نظف الأنف إذا كان يعوق الإطعام . ◄ العودة سريعاً إلى المستشفى إذا : ◄ أصبح التنفس صعبا . ◄ أصبح التنفس سريعاً . ◄ أصبح الإطعام مشكلة . ◄ ازداد مرض الرضيع .

العلامات:	• انقماع شديد للصدر : أو • التنفس سريع . (٦٠/ الدقيقة أو أكثر)	• لايوجد انقماع شديد للصدر و • التنفس غير سريع أقل من ٦٠/ الدقيقة
التصنيف:	التهاب رئوي شديد	لايوجد التهاب رئوي بل سعال أو زكام
المعالجة:	◄ حول فوراً إلى المستشفى . ◄ أدفىء الرضيع الصغير . ◄ تعطى الجرعة الأولى من المضاد الحيوي (إذا كان التحويل إلى المستشفى غير ممكن ، يعالج بالمضاد الحيوي ويتابع عن قرب)	◄ انصح الأم بتوفير الرعاية المنزلية الآتية : ◄ مراعاة تدفئة الرضيع الصغير . ◄ الإكثار من الإرضاع من الثدي . ◄ نظف الأنف إذا كان يعوق الإطعام . ◄ العودة سريعاً إلى المستشفى إذا : ◄ أصبح التنفس صعبا . ◄ أصبح التنفس سريعاً . ◄ أصبح الإطعام مشكلة . ◄ ازداد مرض الرضيع .

الطفل من
(سن شهرين حتى ٥ سنوات)



العلامات :	• غير قادر على الشرب . • اختلاجات . • نعاس غير طبيعي أو صعوبة في الإيقاظ . • الصرير في الطفل الهادىء أو • نقص التغذية الشديد .
التصنيف :	مرض شديد جداً
المعالجة :	• يحوّل فوراً إلى المستشفى . • اعط الجرعة الأولى من المضاد الحيوي • عالج الحمى ، إن وجدت . • عالج الأزيز إن وجد . • اذا كان هناك احتمال بالإصابة بالملاريا ، اعط دواء مضاداً لها .

العلامات :	• انقماع الصدر . وإذا كان هناك أزيز متكرر ، توجه مباشرة إلى • معالجة الأزيز	• لا يوجد انقماع الصدر للداخل و • التنفس سريع (٥٠/ الدقيقة أو أكثر إذا كان سن الطفل من شهرين حتى ١٢ شهراً ٤٠/ الدقيقة أو اكثر إذا كان سن الطفل من ١٢ شهراً حتى ٥ سنوات) .	• لايوجد انقماع الصدر و • لايوجد تنفس سريع . (اقل من ٥٠ / الدقيقة إذا كان سن الطفل من شهرين - ١٢ شهرا أقل من ٤٠/الدقيقة إذا كان الطفل من ١٢ شهرا حتى ٥ سنوات) .
التصنيف :	التهاب رئوي شديد	التهاب رئوي	لايوجد التهاب رئوي بل سعال أو نزلة برد
المعالجة :	• حول فوراً إلى المستشفى . • اعط الجرعة الأولى من المضاد الحيوي . • عالج الحمى ، إن وجدت . • عالج الأزيز ، إن وجد . • (إذا كان التحويل إلى المستشفى غير ممكن يعالج بالمضاد الحيوي ويتابع عن قرب) .	• انصح الأم بتوفير الرعاية المنزلية . • اعط مضاداً حيوياً . • عالج الحمى ، إن وجدت . • عالج الأزيز ، إن وجد . • انصح الأم بالعودة بالطفل خلال يومين لإعادة تقييم حالته أو قبل ذلك إذا ساءت حالة الطفل .	• إذا استمر يسعل اكثر من ٣٠ يوماً يحول للمستشفى لتقييم حالته . • قيم وعالج مشاكل الأذن أو التهاب الحلق ، إن وجدت . • قيم وعالج المشاكل الأخرى . • تنصح الأم بتوفير الرعاية المنزلية . • عالج الحمى ، إن وجدت . • عالج الأزيز إن وجد .

	يعاد التقييم خلال يومين بالنسبة للطفل الذي يعطى مضاداً حيويا للالتهاب الرئوي		
العلامات :	ازدياد الحالة سوءاً • غير قادر على الشرب . • يوجد انقماع للصدر . • لديه علامات خطرة اخرى .	لا تغيير	تحسن الحالة • التنفس ابطأ . • الحمى أقل . • تحسن في تناول الطعام .
المعالجة :	• يحول فوراً إلى المستشفى	• يغير المضاد الحيوي أو يحول إلى المستشفى	• أكمل المضاد الحيوي لمدة ٥ أيام .

Dr. Shatha A. Hasso

Communicable diseases and public Health

Introduction:

Communicable diseases pose a major threat to public health and are of significant concern to community/ public health nurses. A communicable disease is one that can be transmitted from one person to another, is caused by an agent that is infectious, and is transmitted from a source, or reservoir, to a susceptible host. The majority of communicable diseases that the public health nurse will encounter and investigate are considered infectious;

CDC mean communicable disease control.

Epidemics of communicable diseases: have been responsible for annihilation ابادة of entire population. It continue to be a major concern of health care providers . Emergence of new pathogens , re emergence of old pathogens & appearance of drug-resistance pathogens creating challenges for infectious disease control world wide.

Common World Problems

Infectious Diseases----------Maternal & Child Health Problems---------

Malnutrition

Malaria

AIDS

STDS

Measles

T .B

Global attempt to reduce Communicable Diseases

---

1. Global eradication campaigns.
2. International public health priorities.
3. Eradication of some C.D.

4. Elimination of some C.D .

5. Wide spread immunization –vaccination- with coverage of 80% of children.

6.Clean water supply &good sanitation.

7. Oral Re hydration Solution.

8. Provision of health care services.

9. Health education & disease prevention program

Application of community based Health intervention

* Interrupting or disease transmission prevention.

* Assessment of the risk factors that impede health & increase the likelihood of transmission.

Communicable Diseases & Healthy People 2020

1. Reduce AIDS among adolescent and adults.

2. Reduce new cases of Hepatitis C.

3.Achieve an effective vaccination coverage with DPT& MMR.

4. Increase percentage of adult vaccinated with influenza.

Transmission of Communicable Diseases

Communicable diseases transmitted as result of interaction between three main factors

ENVIRONMENT

HOST ----------AGENTS

Epidemiological Triad

Transmission of C.D

1. Vertical transmission:

From parent to offspring through placenta – milk – vaginal contact.

2. Horizontal transmission:

*Direct	*Indirect
Direct contact between infected Host or reservoir to portal of entry In human host e.g scabies, measles And STDS.	Spread of infection through *vehicles—tissue –water-food –blood * vector *Animals.

Direct transmission: occurs by immediate transfer of infectious agents from a reservoir to a new susceptible host. It requires direct contact with the source, through touching, biting, kissing, or sexual intercourse—that is, contact with oral secretions, blood, or other potentially infectious fluid, such as the drainage from a skin lesion. Coughing or sneezing secretions into the face of a susceptible individual can directly transmit respiratory infections, such as measles or pertussis. Close proximity is required, like sharing the space in a car, to transmit an organism from one person to another.

Indirect Transmission: occurs when the infectious agent is transported within contaminated inanimate materials such as air, water, or food. It is also commonly referred to as *vehicle-borne transmission*. Helping to prevent food and water contamination by infectious agents.

Food- and Water-Related Illness: can be caused by viruses, toxins, bacteria, or parasites, such as *Salmonella Shigella, Escherichia coli* , and *Camplyobacter*; the protozoan agent *Giardia*; *Staphylococcus*, and the viral agent hepatitis A. These microorganisms cause intestinal illness, and sometimes even death. The contamination can occur at the source (e.g., contamination by animal into the food or water chain) or through unsanitary food handling or practices, which are referred to as the *fecal–*

oral route. Improper food storage can also create an environment for microorganisms to grow. Ingestion of the pathogenic organism sets in motion the events of a food- or water-related illness. Most commonly, exposure to contaminated food or water results in symptoms related to gastrointestinal function, including diarrhea, nausea, vomiting, stomach cramps, and bloating. Fever may accompany these infections as well. Onset of symptoms may occur within a few hours after exposure or not until days or even weeks later, depending on the microorganism. This time interval between exposure and onset of symptoms is called the **incubation period**.

Microorganism contamination of food resulting in human illness occurs as a result of either infection or intoxication. Infection is related to a pathogen that occurs through ingestion of food contaminated with adequate doses of *Salmonella, Shigella, E. coli,* or other pathogens. The cycle begins when the infectious agent multiplies and grows in the food medium. Infection is usually accompanied by an immune response, such as the production of antibodies with or without clinical manifestation. By contrast, intoxication is caused by the production of toxins as a by-product of the normal bacterial life cycle.

Correct methods for preserving the safety & cleanness of food

Before handling food*:*

●● Wash hands and all food preparation surfaces and utensils thoroughly with soap and water.

When preparing food*:*

●● Wash foods that are to be eaten raw and uncooked thoroughly in clean water. This includes foods that are to be peeled that grow on the ground or come in contact with soil.

●● Cook all meat products thoroughly.

●● Do not allow cooked meats to come in contact with dishes, utensils, or containers used when the foods were raw and uncooked.

When storing leftover foods:

●● Cool cooked foods quickly; store under refrigeration in clean, covered containers.

When reheating leftover foods*:*

●● Heat foods thoroughly. Bacteria contaminating food grow and multiply in a temperature range between 39°F and 140°F.

Vector Transmission

When transmission occurs through a vector (a nonhuman carrier such as an animal or insect), it is known as vector-borne transmission. Rabies and Hantavirus are examples of illnesses passed from animals. Insects such as mosquitoes, fleas, and ticks are responsible for transmission of malaria, plague, and Lyme disease. Transmission can be through a bite of the insect or animal or exposure to the infected animal's body fluids, such as the urine from the Hantavirus-infected rodent.

Control strategies directed toward vector-borne diseases typically involve community education and environmental measures to hinder the vector from reaching the host.

Control strategies may include the following:

●● Reduce the population of insects.

●● Eradicate rodents that carry diseases, such as rats.

●● Use of mechanical or chemical barriers to protect from exposure to vectors, such as mosquitoes or ticks—for example, sprays or mesh bed nets.

●● Public education about preventive and protective measures, including avoiding vector habitats, and how to respond when exposed to a vector to prevent disease from developing.

Airborne Transmission

Airborne transmission occurs through droplet nuclei—the small residues that result from evaporation of fluid from droplets emitted by an infected host. Sneezing and coughing are common examples of airborne transmission. Because of the small size and weight of droplet nuclei, they can remain suspended in the air for long periods before they are inhaled into the respiratory system of a host. Small particles of dust from soil containing fungus spores may cling to clothing, bedding, or floors. The spores may become separated from dry soil by the wind and then be inhaled by the host

The **local health department/agency** is the initial point of notification of a communicable disease investigation. In most states, reporting known or suspected cases of a reportable disease is generally considered to be an obligation of:

_ Physicians, dentists, nurses, and other health professionals

_ Medical examiners

_ Administrators of hospitals, clinics, nursing homes, schools, and nurseries

Some **states** also require or request reporting from

_ Laboratory directors

_ Any individual who knows of or suspects the existence of a reportable disease

Immunization

Control of acute communicable diseases through immunization has been a common practice since the 19th century in the United States. Immunization is the process of introducing a form of a disease-causing organism into a person's system to promote the development of antibodies that will resist that disease. This process stimulates the individual's immune system to create antibodies to the particular infectious disease.

for adolescent immunization rates for four recommended vaccines were as follows: tetanus– diphtheria–acellular pertussis (Tdap) 68.7%; meningococcal conjugate vaccine 62.7%; hepatitis B vaccine series 91.6%; and female teens who had completed the three-dose series of HPV vaccine 69.6%.

Perceived barriers that may impact adolescent immunization levels may include lack of parental knowledge, inadequate access to medical care, and inadequate or no insurance coverage. The community/public health nurse can educate parents to the availability of federal programs
that pay for vaccines for children under the age of 19.

Adult vaccines include Tdap/Td, pneumococcal, zostavax (shingles prevention), influenza, hepatitis A and B, and for some young adults catch up on MMR.

For many years, the emphasis has been on the adult receiving pneumococcal and influenza immunizations, but with recent evidence of pertussis spread from adults to vulnerable infants and young children, Tdap has been given greater emphasis. As of 2010, Tdap is now recommended for adults 19 to 64 years of age regardless of the interval since the last tetanus or diphtheria containing vaccine.

On the personal level, health care providers, public health nurses, and school nurses are in positions to review, educate, and provide opportunities for a child to obtain immunizations. Some children do not enter into the system for immunization review until entry into school, where they may or may not have been immunized.

Immunity :Ability of the body to protect its self from infection.

Acquired Immunity :active exposure to infectious agent

Passive	Active
----------	----------

Donated immunoglobulin by Transfusion	Infection or vaccination body produce immunoglobulin

Control, Elimination &Eradication of Communicable Diseases:

Endemic: constant presence of a disease within a geographical area e.g pertusis in USA. Typhoid fever in Iraq

Epidemic: Occurrence of a disease in the community in excess of normal expected range e.g ADIS in Iraq.

Pandemic : Epidemic occurs world wide e.g HIV, AIDS.

Control : Reduce of incidence or prevalence of a given disease to locally acceptable level with a deliberate effort.

Elimination: Control of C.D within a specified geographical area e.g single country.

Eradication: Reducing the world wide incidence of a disease to zero with deliberate efforts –termination.

Levels of Prevention of Communicable Diseases

Primary Prevention: Reduce incidence of a disease by certain measures like Health education, vaccination.

Secondary prevention: Early diagnosis and early treatment Like measles.

Tertiary Prevention: rehabilitation of patient complaining from disability Like patient with AIDS.

Vaccination

EPI: Is global attempt to control morbidity & mortality for many vaccine preventable diseases , it is adopted by W H O and UNICEF and other inter national health organization with a goal of achievement of 80% immunization coverage.

Vaccine: Substance contain either live attenuated micro organism or killed or toxin of micro organism.

Live attenuated		killed		Toxoid
---		---		---
Viral	bacterial	Viral	Bacterial	
Measles	BCG	influenza	typhoid	diphtheria
Mumps		rabies	cholera	hepatitis B
Rubella		hepatitis A		
Polio				

Factors Affecting Vaccine Efficacy

1. vaccine storage, transport and handling.
2. vaccine administration and routes.
3. vaccine spacing
4.vaccine hyper sensitivity & contra indication.

The **Nursing process of communicable diseases:**

Assessment

The first step of the nursing process, assessment, aligns itself with case-identification and case-finding in communicable disease control. The community health nurse must use all assessment skills and tools available during contact with clients, so as not to overlook the possibility of a communicable disease. Assessment must be comprehensive, producing **physical, social, and environmental data**. There is no place for assumption. The nurse record the:

baby's temperature,

look at her for a rash,

compare present weight with last weight,

ask about bowel habits or vomiting,

inquire about illnesses in the family,

check on breast-feeding technique

watch while the mother demonstrated formula preparation,

inspect the family's water source,

ask about other foods the baby is eating, and so forth?

Broader inquiry into such a simple statement from the mother in this example may lead to the discovery of a life-threatening, undiagnosed communicable disease.

Assessment in the broader sense with respect to communicable disease control relates to the **surveillance** for disease. As mentioned previously, communicable diseases are reportable and the public health nurse may be the first to notice a trend in a rise in a particular disease rate.

Planning

The planning step in the nursing process involves different activities, depending on whether the intervention is for an individual, family, group, or entire community.

At the individual level, the nurse may assist a client or family to obtain an immunization or definitive treatment.

Or, the nurse may assist the client through education about self-care related to disease symptoms that provide relief and in reducing the chance of transmitting the disease to others in the family or community. With groups and communities, planning interventions includes the collaboration with community members and/or organizations.

there are location, staff, and supplies to prepare, which may include writing grants, establishing contracts, and training before implementation can begin.

Implementation

During the implementation step, the nurse actually takes the action that was identified as necessary during assessment and planning. In the implementation step, the nurse may actually deliver the service or may supervise other staff or volunteers, as with a large immunization event. Implementing plans with small groups or families may involve arranging for transportation, so that several people can get to the immunization site

or can be seen by a primary care provider. It may include gathering clinical specimens for laboratory analysis from a family recovering from a *Salmonella* infection.

Education on primary prevention to prevent future infections is an essential part of the implementation phase. Agency record keeping, state-required contact investigation, and reports to the next level of government oversight of a communicable disease are essential in this phase.

Evaluation

Evaluation is an essential step in the nursing process with all services community health nurses provide. When dealing with communicable diseases, it is most important to determine whether actions have achieved the established goals. Have the outcomes been accomplished?

Are all family members immunized?

Are all family members free of the disease?

Do families know how to prevent the diseases recurring?

What needs to be done now to keep the community safe from communicable diseases?

Are there funding issues, programs nearing completion that need support, or growth of services needed that can be addressed before a critical need occurs?

Lecture

Management of the patient with diarrhea

Management of the patient with diarrhea

Objective:

Define, type diarrhea, treatment, nursing role-

-Type diarrhea according duration &causes

-Treatment according type diarrhea

-Assessment patient with dehydration

Define: diarrhea if you have loose stools three or more times in one day.

Type diarrhea according duration

1- Acute diarrhea from 1day -14 day (2 week)

2- Chronic diarrhea 1day -1 month

Type diarrhea according causes:

1-Becterial infections, treat with antibiotics

2- Parasitic, treat with ant parasitic drugs or antifungal

3- Blood present, bloody stool treat according causes.

Assess your patient for dehydration

	A	B	C
1. Look at: condition	**Well ,alert**	**Restless ,irritable**	**Lethargic or unconscious**
Eyes	**Normal**	**Sunken**	**Very sunken & dry**
Tears	**Present**	**Absent**	**Absent**
Mouth &tong	**Moist**	**Dry**	**Very dry**
Thirst	**Drinks normally, not thirsty**	**Thirsty ,drinks eagerly**	**Drinks poorly or not able to drink**
2. Feel: skin pinch	**Goes back quickly**	**Goes back slowly**	**Goes back very slowly**
3. Decide	**The pt has no signs of dehydration**	**If the pt has two or more sign there some dehydration**	**If the pt has two or more signs there is sever dehydration**
4. Treat	**Use treatment plan A**	**Weigh the pt ,if possible, &use treatment plan B**	**Weigh the pt &use treatment plan C URGENTLY**

Treat plan A (mild) treat diarrhea at home.

Explain the three rules for treating diarrhea at home.

1- Give the child more fluids than usual to prevent dehydration.

2- Give the child plenty of food to prevent malnutrition.

- continue to breast-feed frequently.3

-if the child is not breast- feed, give the usual milk.

Treatment plan B (moderate diarrhea). To treat dehydration approximate amount of ORS solution to give in the first 4 hours and re-assessment during 24 hours

Contents of ORS:

1- **Glucose 20g**
2- **Sodium Chloride 3.5**
3- **Trisodium Citrate 2.9**
4- **Potassium 1.5**

Treatment plan C to treat severe dehydration quickly:

Referral to Hospitalization

- Start IV fluids immediately, if the pt can drink, give ORS by mouth while the drip is set up. give shoot 20 ml/kg Normal Saline or Ringers lactate solution for one hours.
- Give Maintenance Fluids Glucose Saline for 24 hours

TABLE 18–7 Calculation of Intravenous Fluid Needs

STEP	CALCULATION	
Calculate the maintenance fluid needs of the child, using guidelines at right.	Usual Weight	Maintenance Amount
	Up to 10 kg	100 mL/kg/24 hr
	11—20 kg	1000 mL + (50 mL/kg for weight above 10 kg)/24 hr
	>20 kg	1500 mL + (20 mL/kg for weight above 20 kg)/24 hr
Calculate replacement fluid for that lost, using formula at right to obtain mL/kg/24 hr required.	Percentage of body weight loss × 10 × normal weight = mL/kg/24 hr required	
Calculate continued losses; add them to total of maintenance and replacement needs.		

- Reassess the patient every 1-2 hours.
- Also give ORS (about 5ml/kg/hour) as soon as the pt can drink.

Acute respiratory infection(ARI)

Acute respiratory infection is a serious infection that prevents normal breathing function. It usually begins as a viral infection in the nose, trachea (windpipe), or lungs. If the infection is not treated, it can spread to the entire respiratory system. Acute respiratory infection prevents the body from getting oxygen and can result in death. Person suffering from this condition needs medical assistance immediately. Also, acute respiratory infections are infectious, which means they can spread from one person to another. The disease is quite widespread. It is particularly dangerous for children, older adults, and people with immune system disorders. According to the World Health Organization (WHO), acute respiratory infections kill an estimated 2.6 million children annually every year worldwide.

Symptoms of Acute Respiratory Infection

The early symptoms of acute respiratory infection usually appear in the nose and upper lungs. Other symptoms include:

- congestion, either in the nasal sinuses or lungs
- runny nose
- cough
- sore throat
- body aches
- fatigue

If the disease advances, there may be high fever and chills. Other serious symptoms are

- difficulty breathing
- dizziness
- low blood oxygen level
- loss of consciousness

.

Potential Complications of Acute Respiratory Infection?

Complications of acute respiratory infection are extremely serious and can result in permanent damage and even death. They include:

- respiratory arrest
- respiratory failure
- congestive heart failure

Prevention of Acute Respiratory Infection

Most causes of an acute respiratory infection are not treatable. Therefore, prevention is the best method to ward off harmful respiratory infections. Practice good hygiene by doing the following:

- Wash hands frequently, especially after having been in a public place.
- Always sneeze into one's arm of the shirt or in a tissue. Although this may not ease one's symptoms, it will prevent the spreading of infectious diseases.
- Avoid touching one's face, especially eyes and mouth, to prevent introducing germs into one's system.

Acute Upper Respiratory Infection

upper respiratory tract includes the nose, throat, pharynx, larynx, and bronchi.the common cold is the most well-known URI. Other types of URIs include sinusitis, pharyngitis, epiglottitis, and tracheobronchitis. Influenza, on the other hand, isn’t an URI because it’s a systemic illness.

What causes acute upper respiratory infection?

Both viruses and bacteria can cause acute URIs:

Bronchitis

Inflammation of the bronchial tubes is bronchitis. The right and left bronchial tubes branch off from the trachea and go to the right and left lungs..

What are the symptoms of acute upper respiratory infection?

A Symptoms are caused by inflammation of the mucous membranes in the upper respiratory tract. Other symptoms include:

- fever
- fatigue
- headache
- pain during swallowing
- wheezing

How is acute upper respiratory infection diagnosed?

Tests that may be used to diagnose URIs are:

- Throat swab.
- Lateral neck X-rays.
- Chest X-ray. CT scan.

Acute respiratory infection (ARI)
A young baby under two months old

Category	**Signs**	**Treatment**
Very severe disease	-stop eating good food -Convulsions -Drowsiness with difficulty waking -Wheezing in breath -Low or high body temperature	-Immediately transfer the pt to the hospital -Keep the child warm -Give the first dose of the antibiotic

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Category	**Signs**	**Treatment**
Severe pneumonia	-Severe chest suppression -Fast breathing 60/ min or more	-Immediately transfer the pt to the hospital -Keep the child warm -Give the first dose of the antibiotic -If pt transfer is not possible give antibiotic & observation

Category	**Signs**	**Treatment**
Cough or cold no pneumonia	-There is no severe chest suppression -Breathing is slow less than 60/min	Mothers advice to provide the following home care: -Consider heating the baby -Increased breastfeeding -Clean the nose if the food is difficult Quickly return to the hospital as: -Breathing become fast -Breathing become difficult - Difficulty eating -The infants disease has increase

Child from two months to five years

Category	Signs	Treatment
Very severe disease	-He can't drink -Drowsiness -Wheezing in a quiet child -Lack of nutrition	-Immediately transfer to the hospital - Give the first dose of the antibiotic -Treat of fever in any -Treat wheezing in any -I the risk of malaria , give an antimalaria

Category	Signs	Treatment
Severe pneumonia	-Chest suppression -Treat frequent wheezing in any	-Immediately transfer to the hospital - Give the first dose of the antibiotic -Treat of fever in any -Treat wheezing in any -If pt transfer is not possible give antibiotic & observation

Category	Signs	Treatment
Pneumonia	-There is no chest suppression -Breathing is fast(50/min or more if age 2months to 1year. 40/min if age 1year to 5 year)	- Mothers advice to provide the following home care -Give antibiotic -Treat of fever in any -Treat wheezing in any -Return the child to assess his condition ,or before that if his condition worsened

Category	Signs	Treatment
There is no pneumonia but cough& cold	-There is no chest suppression -There is no quick breathing(less50/min if age 2months to1year. Less 40/min if age 1year to 5year	-If the cough lasts more than a month ,going to hospital to assess the condition -Assess &treat ear & throat problems if any -Assess &treat other problems - Treat of fever in any -Treat wheezing in any

Reassess in two days for a child who gives an antibiotic

Signs	Bad situation -Unable to drink -There is suppression in the chest -Has other dangerous signs	No change in status	The situation improved -Breathing slower -Fever is less Improved eating
Treatment	-Immediately transfer to the hospital	The antibiotic changed or referred to hospital	Complete the antibiotic for 5 day

University of Mosul

College of Nursing

Department of Clinical Nursing Science

Community Health Nursing

Field Visits

Visit to School
Clinical objectives:

At the end of the visit the student will be able to :

1. Identify the healthy school environment.

2. Recognize the different health needs of pupils with the Corresponding health services.

3. Identify the source of parent /community involvement.

4. Demonstrate the nursing skills in providing care to pupils.

Student's Name:

Date of the Visit :

Name of school:

Name of Supervisor:

Student Guideline for School Visit

1. Organizational Information:

a. Total number of pupils:

b. Number of pupils per class:

c. Daily school time in hours:

2.Physical School Environment:

A. Building .	**safe**	**unsafe**
	clean	**not clean**
B. Recreational space .	**adequate**	**inadequate**
C. Garden .	**present**	**not present**

D. Classroom :	**Yes**	**No**
a. Adequate light.		
b. Adequate ventilation .		
c. Suitable seats .		
d. Clean board .		
e. Board distance / 1.5-2 m .		
f. Intact widows and doors .		
g. Safe electrical source .		
h. Adequate heating and cooling system .		

E. Toilet and Hand Washing Facilities:	**Yes**	**No**
a. Available .		
b. Enough number .		
c. Suitable location.		
d. Good hygiene .		
e. Presence of air empty machine .		

F. School Hygiene :	**Yes**	**No**
a. Presence of waste containers .		
b. Classroom waste container.		
c. Presence of workers for cleaning.		

G. Drinking Water : **Yes** **No**

a. Available .
b. Safe source .
c. Suitable location / position.
e. Away from sewage system .
f. Safe /clean water container.

H. Surrounding School Environment : **Yes** **No**

a. Source of noise.
b. Crowded street.
c. Waste dump.
e. Generator .
f. Unsafe food source.

3. Health Services and Prevention of Injuries: **Yes** **No**

a. Clinical examination at school entry.
b. Periodic school examination.
c. Vaccination.
d. Teeth examination .
e. Screening :
Communicable diseases.
Vision.
Hearing.
Psychological and mental problems.
Speech.
Learning process.
f. First Aid measures & facilities .
g. Referral system .
By whom ----------
To ---------- .
h. Firefighting devices .
i. School pharmacy **.**

4. Nutritional Services : **Yes** **No**

a. Presence of grocery .
b. Proper location .
c. Good hygiene .
d. Safe / clean food .
Type of food ----------

5. Health Education : **Yes** **No**

a. Individual .

b. Group.

Items covered :----------

Method used :----------

Who conduct the session: ----------

---

6. Parents and Community Involvement: **Yes** **No**

a. Health education programs
for family and community.

7. Describe the Role of School Health Nurse:

---

8. Self Evaluation :

Was the visit beneficial ? **Yes** **No**

Why ?

Dr. Shatha A. Hasso

Introduction to trauma

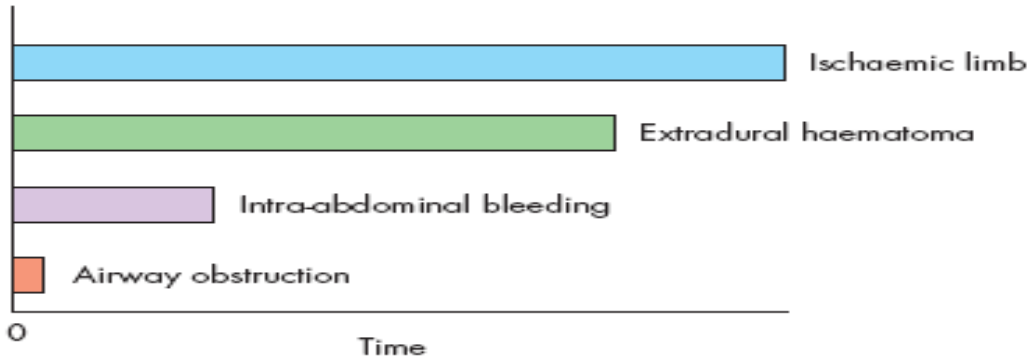
Trauma is an external physical or chemical force that affect the body and exceeds it`s resilience leading to injury
The injury is the adverse effect of a physical (or chemical) force upon a person
Traumatology is the study of medical problems associated with physical and chemical injury.

THE SCALE OF THE PROBLEM.

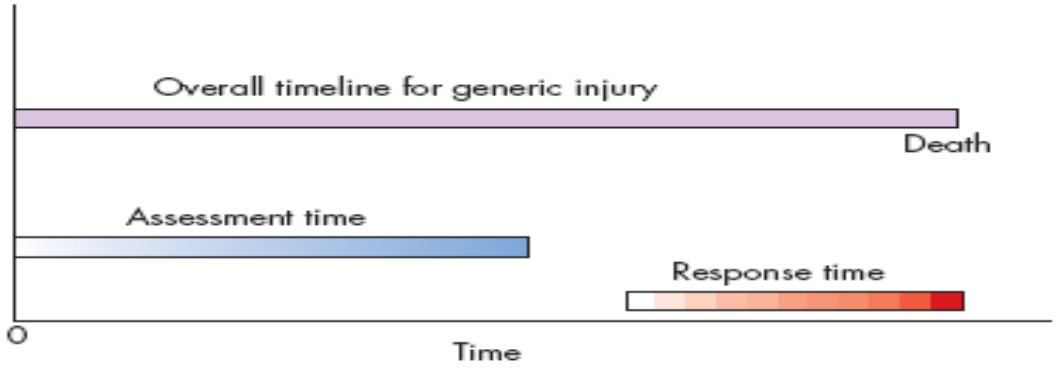
Trauma is recognised as a serious public health problem,
In fact, it is the leading cause of death and disability in the first four decades of life and is the third most common cause of death overall
Fragility fractures are an increasing burden e.g. proximal femoral fractures, Look beyond the obvious in trauma management (non-accidental injuries)

THE IMPORTANCE OF TIME

.An identifying feature in the study of trauma is time
At time zero the person/patient is at their normal baseline. There is then some interaction with an external force leading to injury.



The order ABCD, that is airway, breathing, circulation and disability (neurology), of the ATLS (Advanced Trauma Life Support) system is founded upon this time .dependence



Time pressure shapes our management of trauma

There is a finite time to assess

There is a finite time to respond

For success these must fit into the available time before irreversible damage or death

Penetrating:

Incisional

stab

Firearm

Blunt :

Direct

Indirect

Incisional and stab injuries

Require knowledge of anatomy, The abdominal contents extend high into the chest

Even cardiac injuries are treatable if recognised early and treated quickly

Firearm injuries

Low-velocity bullets behave like knife injuries

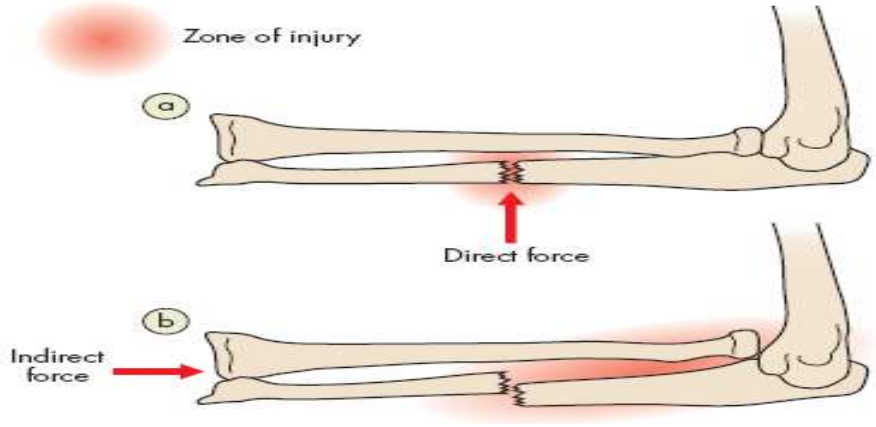
High-velocity bullets cause cavitation

The temporary cavity is large and draws in foreign materials

The permanent cavity is smaller and gives no clue to the extent of damage

BLUNT INJURIES

DIRECT
INDIRECT



Overt versus Covert injuries

Overt=clear

Covert=hidden

OVERT INJURIES : Obvious injuries and can be expected from the patient type, presentation and mechanism of injury. Example

Covert mechanisms & injuries

Patients usually tell the truth but may not if criminal activity is involved

Fear of abuse may prevent vulnerable patients telling the truth

Patients likely to have covert problems need careful checking even if their injury appears to have a simple mechanical cause

Mechanism	Obvious features	Covert injuries
Left-sided impact from road traffic accident	Lateral compression of the pelvis Left-sided pneumothorax	Splenic rupture Extradural haematoma
Flexion distraction (lap belt)	Chance fracture of the lumbar spine Dislocated knee Head injury	Duodenal rupture Popliteal artery disruption Cervical spine fracture
Electrocution	Burn on hand and collapse	Posterior dislocation of the shoulder
Dashboard impact	Knee wound	Posterior dislocation of the hip

trauma can be divided into two basic types

Serious and life-threatening injury

.Significant trauma requiring treatment but not immediately life threatening:

The approach to the traumatized patient is very different from that of a patient with an undiagnosed medical condition as, in the latter, an extensive history, past medical history, physical examination, differential diagnosis and investigations .ordered to confirm or refute this diagnosis are undertaken

In the trauma setting, it is often not possible to obtain such information immediately; hence, a standardized protocol of management is required

The Advanced Trauma Life Support (ATLS) system was therefore created initially in the USA and rapidly taken up globally

The steps in the ATLS philosophy

--Primary survey with simultaneous resuscitation – identify and treat what can kill the patient

--Secondary survey – proceed to identify all other injuries

--Definitive care – develop a definitive management plan

Trauma therapy: These points illustrate the four main features of effective trauma care:

--Comprehensive therapy extending from the initial field evaluation through the completion of rehabilitation

--Multidisciplinary therapy involving the coordination of a dedicated team of

health professionals
--Systematic therapy providing a framework for the timely and accurate identification of all injuries and comorbidities
--Rapid therapy resulting in the proper prioritization of injuries and the interventions required to treat them
--The most successful outcomes occur when a knowledgeable and skilled surgeon leads a cohesive team according to these principles. Each member of the team has specific responsibilities, and the collective effort results in the timely identification and treatment of life threats, an accurate and complete injury inventory, and an appropriately prioritized **plan of care**

Trauma Care

I. **Prehospital care** of the trauma patient is provided by a wide range of emergency medical service (EMS) personnel with varying levels of EMS skills training (first responders, emergency medical technicians, and paramedics). These field professionals are responsible for performing the three major functions of :prehospital care
--Assessment of the injury at scene
--Stabilization and monitoring of the injured patient
--Safe and rapid transportation of critically ill patients to the appropriate trauma center

The **observations and interventions** of EMS personnel provide important data that guide the resuscitation of an injured patient. On the arrival of the patient to the trauma center, these data must be communicated to the trauma team in an efficient, organized manner

The MVIT system (mechanism, vital signs, injury inventory, treatment) of reporting is one frequently used method that takes between 30 to 45 seconds to complete

A. The mechanism of a trauma provides important information about the pattern and severity of injuries sustained in the event
--The pattern of injury can often be predicted based on the type of trauma. Front-end car collisions can cause direct contact between the driver's knees and the dashboard

--Injury severity can be intuited from the mechanism of trauma through estimating the amount of energy transfer
a motor vehicle at high speed therefore will likely sustain more severe injuries than an athlete hit by a baseball. Even though the differences between the squares

of the final and initial velocities of the vehicle and the baseball may be similar, their masses (and hence the energy transfer) are of different orders of magnitude

B. Vital signs, including level of consciousness and voluntary movement, give insight into the clinical trajectory of the patient. EMS providers typically measure and report these values, often in less-than-ideal conditions. Deterioration of vital signs en route to the trauma center suggests the existence of life threats requiring immediate intervention. Improvement in vital signs en route may reflect transient compensatory responses by the patient. They may, however, only reflect human .error in obtaining data in difficult circumstances

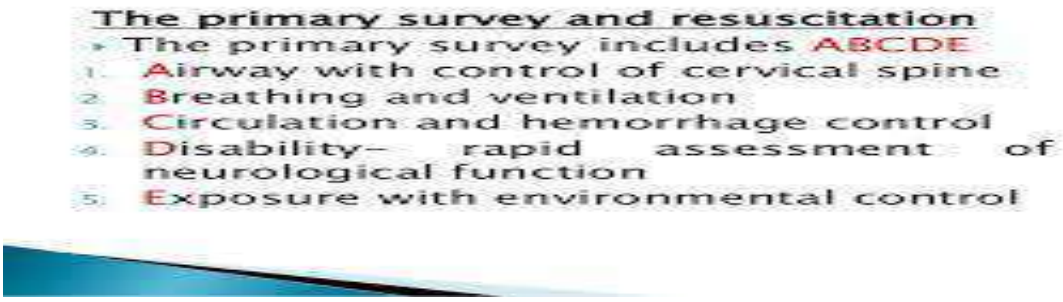
C. The injury inventory consists of the description of injuries as observed by the EMS personnel. Important prehospital observations include whether the patient was trapped in a vehicle, crushed under a heavy object. Such findings alert the trauma team to critical secondary injuries have a profound impact on outcome

D. Treatment

Prehospital treatment is aimed at stabilization of the injured patient and involves securing an airway, providing adequate ventilation, assessing and supporting circulation, and stabilizing the spine. EMS caregivers fulfill these goals through various therapies that include (but are not limited to) administration of oxygen and intravenous fluids, prevention of heat loss, and immobilization of the spine with a backboard and properly fitting hard cervical collar. Any patient suspected of having injuries to the cervical spine must be placed in a rigid collar. The effects of such prehospital interventions must be taken into account during the initial evaluation of a seemingly stable patient

Initial hospital care: usually takes place in the emergency department and has two :main components

A. The primary survey is a systematic, rapid evaluation of the injured patient : consisting of two main components



--simple history is obtained (if possible). This history follows the acronym AMPLE (allergies, medications, past medical history, last oral intake, and events .(surrounding the injury

--(ABCDE (airway, breathing, circulation, disability, exposure

Airway. Establishing a patent airway is the highest priority in the care of a trauma patient, because without one irreversible brain damage can occur within minutes. A patient who is able to respond verbally has a patent airway. A patient who cannot respond verbally must be assumed to have an obstructed airway until proved otherwise. Every trauma patient initially should have oxygen administered (via nasal cannula or bag valve facemask) and an oxygen saturation monitor (i.e., pulse oximeter) placed

a. Basic maneuvers. A frequent cause of airway loss in the trauma patient is mechanical obstruction caused by vomitus, phlegm, or other debris in the oropharynx

Simple suctioning can remove such blockage. In the semiconscious or unconscious patient

The jaw-thrust maneuver can successfully displace the tongue anteriorly from - the pharyngeal inlet which can occlude the airway

an oropharyngeal airway (or, in the absence of head trauma, a nasopharyngeal - airway) can mechanically displace the tongue anteriorly, securing patency. Both devices, however, can cause significant irritation of the upper aerodigestive tract with resultant vomiting, and, as a result, they should not be used on fully conscious patients

b. Tracheal intubation is indicated in any patient in whom concern for airway integrity exists (unconscious or semiconscious patients, patients with mechanical obstruction secondary to facial trauma or debris, combative and hypoxic patients). The preferred method of intubation is via the orotracheal route using (rapid :sequence induction

Table 2. Rapid Sequence Intubation

1. Place appropriate monitors (CR, BP, pulse oximeter)
2. Prepare medications and appropriate equipment
3. Preoxygenate with 100% oxygen
4. Premedicate with adjunctive agents if necessary
    a. Atropine
    b. Lidocaine
5. Administer appropriate sedative agent
6. Apply cricoid pressure (Sellick maneuver)
7. Administer neuromuscular blocking agent
8. Confirm endotracheal tube placement
    a. Pulse oximetry
    b. Carbon dioxide detector
    c. Chest X-ray

preintubation spontaneous 100% oxygenation:for 3-5 minute
--During this time, a team member provides in-line cervical spine stabilization to . prevent unintentional manipulation as the hard cervical collar
other team member provides anterior pressure on the cricoid cartilage to occlude the esophagus . This pressure prevents aspiration during intubation
--Sedative or hypnotic medication is administered via a functioning intravenous .line with a valve
--A paralytic agent is administered immediately after the sedative. Succinylcholine, 1.00–1.25 mg/kg i.v., is the paralytic of choice because, as a depolarizing muscle relaxant, it has a rapid onset (fasciculations within seconds) and a short half-life (recovery within 1–2 minutes). Contraindications:1. in the acute trauma setting are limited to patients with known pseudocholinesterase .deficiency 2.previous spinal injury
Adequacy of ventilation should be verified by bilateral auscultation in each axilla. A chest X-ray should be taken within the next few minutes and checked to ensure proper endotracheal tube position

c. Direct cricoid membrane airways. In the majority of injured patients, orotracheal intubation provides a secure airway. In certain situations (unsuccessful orotracheal attempts, massive facial trauma), however, a more direct route is required. The two main means of providing such an airway are via .1.cricothyrotomy or 2.percutaneous transtracheal ventilation
--Breathing. Once an airway is established, attention is directed at assessing the patient's breathing (i.e., the oxygenation and ventilation of the lungs). a patent airway does not ensure adequate breathing because the trachea can be ventilated without successfully ventilating the alveoli. Through the secured airway, 100% oxygen is administered. The axillae are auscultated to assess gas delivery to the peripheral lung. Any abnormal sounds suggest potentially life-threatening conditions. The chest wall motion is observed. The position of the trachea is noted. The use of accessory muscles of respiration is sought (this is often a sign of severe .(respiratory compromise and impending cardiovascular collapse
--Circulation. After evaluation of both the airway and breathing, the circulation is assessed. The goal of this portion of the primary survey is to identify and treat the presence of shock in the patient. Initially, all active external hemorrhage is controlled with direct pressure, and obvious fractures are stabilized. The pulse is characterized, and a blood pressure (BP) is obtained. The skin perfusion is determined by noting skin temperature and evaluating capillary refill

Over time, end-organ perfusion during trauma resuscitation is estimated using mental status and urine flow as markers

Shock is defined as the inadequate delivery of oxygen and nutrients to tissue. The etiologies of shock can be divided into three broad categories:1. hypovolemic,2. cardiogenic, 3.distributive. The trauma team must be familiar with the manifestations and therapy of each category of shock

Disability The goal of this phase of the primary survey is to identify and treat life-threatening neurologic injuries, and priority is given to evaluating level of consciousness. The level of consciousness is quickly assessed using the APVU system (ascertaining whether the patient is awake, opens eyes to painful stimulus, opens eyes to voice, or is unarousable). The pupils are examined, noting size, symmetry, and responsiveness to light. Focal neurologic deficits are noted. Signs of significant neurologic impairment . Severe neurologic injuries require urgent .evaluation and are either intracranial or spinal in origin

Exposure with environmental control. Its purpose is to allow for complete visual inspection of the injured patient while preventing excessive heat loss. The patient is first completely disrobed, cutting away clothing so as not to disturb occult injuries. The patient then undergoes the visual inspection, including logrolling to examine the back, splaying of the legs to examine the perineum, and elevation of the arms to inspect the axillae. The nude patient loses heat rapidly to the environment . The resuscitation room should be kept as warm as possible. Any cold metal backboard should be removed as quickly as possible, and all soggy clothing or bedclothes should be taken off expeditiously. All resuscitation fluid should be warmed. Finally, the patient should be covered with warm blankets or a ―hot air‖ heating blanket

B. Completion of the primary survey. The completion of the primary survey should be followed by a brief assessment of the adequacy of the initial resuscitation efforts

Monitoring. If not already in place, ECG leads and a pulse oximeter should be applied. Provision for serial BP measurements should be made, preferably by an automatic cuff. Finally, an indwelling urinary catheter should be placed after doing a retrograde urethrogram is necessary. If it is normal, the catheter may be passed. If urethral injuries are present, immediate consultation with a trained urologist is .required before attempting to pass the catheter

Laboratory values. After placement of two intravenous catheters, laboratory values should be obtained. The most important test to obtain is the cross-match. Other investigations include blood chemistries, hematologic analysis, coagulation profile, toxicologic analysis (with ethanol level), urine analysis, and beta-human chorionic gonadotropin level if the patient is a woman of child-bearing age. It should not, therefore, be considered an indicator of circulating blood volume in the trauma patient. (Serial hematocrit values, however, may give an indication of .ongoing blood loss.) Finally, an arterial blood gas analysis should be drawn
Adequacy of resuscitation. The adequacy of resuscitation can best be determined using urine output and arterial pH as indices because they are excellent global indicators of adequate end-organ perfusion. urinary output of 0.5–1.0 mL/kg per (hour (50–75 mL per hour) in adults (1–2 mL/kg per hour in children
Radiographic investigations. Essential radiographic investigations are ordered. These tests can provide critical data regarding injuries sustained in a trauma. These .investigations include X ray, US, CT scan …etc

C. Secondary survey. It is a complete head-to-toe examination of the patient. Thoroughness is the key to avoid missing injuries, and a systematic approach is required. Only limited diagnostic evaluation is necessary to make a decision about subsequent interventions or evaluations. A review of important aspects of the .secondary survey according to anatomic region follows

II. Definitive hospital care. With the completion of the primary and secondary surveys, definitive hospital care is undertaken, ranging from emergent celiotomy to admission and further assessment. During this phase of care for the trauma patient, extensive diagnostic evaluations are completed and therapeutic interventions performed. In this section, important therapeutic principles are discussed according .to the anatomic location of the injury

University of Mosul

College of Nursing

Department of Clinical Nursing Science

Community Health Nursing

Field Visits

Visit to Elderly Home
Clinical objectives:

At the end of the visit the student will be able to :

1. Identify elderly people in the family / community .

2. Recognize the different needs of old population.

3. Identify the available community resources that support old people

4. Demonstrate the nursing skills in providing care to elderly.

Student's Name:

Date of the Visit :

Setting :

Name of Supervisor:

Student Guideline for Field Visit

1. State the objectives of elderly home:

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2. Describe the building of the elderly home and the available Departments:

3.State the characteristics of the elderly people to be accepted in The home :

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4. List the different services provided for elderly in the home :

---

5. List the categories of problems that you have observed in elderly Home during your visit :

6.Mention the health promotive activities that available for elderly:

7.Describe the recreational facilities available to elderly in the home:

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8. Suggest an action plan to solve the problems identified and to Encourage health promotion for elderly :

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9. Identify the categories of medical , nursing and supportive staff In the home in term of their number , specialty ,and experience:

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10. For self evaluation , was the visit beneficial :

Yes

No

Why ?

University of Mosul

College of Nursing

Department of Clinical Nursing Science

Community Health Nursing

Field Visits

Visit to occupational health agency.

Clinical objectives:

At the end of the visit the student will be able to :

1. **Describe the administrative functions of occupational health Services.**

2. **Identify occupational health hazard associated with the industry.**

3. **State the protective measures (personal & environmental) that Instituted by the industry.**

4. **Describe the role of community health nurse in occupational health services.**

Student's Name:

Date of the Visit :

Setting :

Name of Supervisor:

Student Guide for Assessment of Occupational Health Services

Name of industry (Agency):

1. Organizational information:

a. Total number of employees :
b. Length of work time / shift :
c. Length of work per week:
d. Age of entry :
e. Age of retirement:

2. Availability of supportive services and welfare programs:

Programs	**Yes**	**No**
a. Insurance program.		
b. Educational program.		
c. Retirement program.		
d. Recreational program .		
e. Rehabilitation program.		

3. Work environment:

a. Space :

Adequate:
Isolated:
Crowded:

b. Standing /Sitting facilities :

Adequate:
Inadequate:

c. Safety equipment /devices:

Used :
Not used:

If used ,what types:

1. Safety glasses :
2. Face mask :
3. Gloves and gowns :
4. Radiation padges :
5. Hearing protective devices :

If not used / Why ?

---

4. Types of work place hazards and exposure :

a. Biological :
b. Chemical :
c. Physical :
d. Psychological :

5. Risk control measures :

Measures	present	absent
1. Total enclosure :		
2. Ventilation :		
3. Mechanism guards:		

6. Sanitary Facilities :

Facility	present adequate	absent inadequate
1.Safe drinking water:		
2. Hand washing facilities:		
3. Rest rooms:		
4. Lockers :		
5. Toilets:		

7. Methods of Waste Disposal :

Methods	safe	unsafe
a. Solid :		
b. Liquid :		
c . Aerosol :		
d. Accumulation of dust :		

8. Recreational Facilities : present absent

9. Environmental monitoring : done not done

If done how often? Monthly /twice a year /yearly**.**

10. Health and safety programs :

Health personnel	**Yes**	**No**	**How many**
a. Physician :			
b. Occupational nurse :			
c. Sanitary officer :			
d. Sanitary assistant :			
e. First aid assistant :			

Safety personnel

a. Safety engineer:
b. Safety supervisor:

Health and safety facilities

a. Hospital :
b. Dispensaries :
c. First aid station :
d. Ambulance :
e. Firefighting devices :

Health examination and programs

a. Pre- employment :
b. Periodical :
c. Special medical :
d. Post sickness :
e. Health fitness :
f. Screening test :

Referral system :

By whom /physician / nurse / others ----------.
To whom / hospital ----------/ health center ----------.
Reason for referral ----------

---.

11. Health education for workers : present absent

Method : Individual / group:----------
Media used : projected /non projected-:----------
Who conducts these sessions:----------

12. Describe the role of occupational health nurse in providing health Care services at work place :

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13. Self evaluation : was this visit beneficial ?

Yes :
No :
Why ?

Dr. Shatha A. Hasso

Violence : is the intentional use of physical force against another person or against oneself which result to injury or death . 1.6 million person lose their life due to violence,

A *family crisis* is a stressful and disruptive event that comes with or without warning and disturbs the equilibrium of the family. when usual problem-solving methods fail. All families experience periods of crisis:

a toddler is diagnosed with a serious illness;

a teenager discovers she is pregnant;

a father and sole breadwinner in a family loses his job;

a mother's social drinking becomes habitual after her children go off to college;

or a family's home is destroyed in a hurricane, earthquake, flood, or fire.

If you think back on your family's history, you can probably identify one or more People respond to crises differently.

Primary and secondary prevention measures used by community health nurses that help prevent crises include teaching families parenting skills and coping strategies and informing them about community resources. In addition to assessment and education, community health nurses provide tertiary responses with direct assistance during times of crisis.

History of Family Violence

Family crisis is not limited to the developmental crises people experience or the situational crises that come upon us suddenly, usually from forces—such as nature—that are external to the family. Many women and children in the world also experience the crisis of domestic violence. The terms domestic violence, family violence, and interpersonal violence refer to morbidity and mortality attributable to violence within the home setting, involving action by a family member or intimate partner. Domestic violence involves "a systematic pattern of assaultive and coercive behaviors, including physical, sexual, and psychological attacks and economic coercion, that adults or adolescents use against their intimate partner.

Factors lead to Violence:

1.Poverty, unemployment, economic dependency

2.Polydrug & alcohol abuse

3.Dysfunctional family, social environment & lack of emotional support.

4.Media influence: violent video game, TV show

5.Access to firearm

6.Intolerance & ignorance

7.Antisocial behavior

8.Low parental education

9.Diminished economic opportunities

10.Family disruption

Risk Factors in elderly people

Regardless of the type of abuse an elder suffers or the motivation of the abuser, two factors are common to all elder abuse situations. The **first factor is the *invisibility*** of elders in general and of abused elders specifically. It is estimated that fewer than 10% of elder abuse cases are reported. Older people usually have less contact with the community which keeps their problems hidden longer. In addition, older adults are reticent to admit to being abused or neglected. Because the abuser is most often a family member, the elder desires to protect the abuser; without this abusing family member, the elder may be entirely alone. On the other hand, the elder may fear reprisal from the abuser for coming forward with a self-report of abuse or telling someone about the home situation.

Cultural and societal values also contribute to keeping “family matters” private, while shame and embarrassment make it difficult for many elders to tell others of the abuse..

The **second risk factor is the *vulnerability*** of older adults. Many elders who are frail are dependent on others for some aspect of their day-to-day survival. At first, they may need to rely on others for transportation, shopping, and housekeeping. Later, they may need help with financial affairs, cooking, and laundry. In time, the elder may need help managing medications, bathing, and eating. The degree to which an elder needs assistance is often kept hidden from others because the elder fears being removed from his present living situation and being placed in a more restrictive environment. Additionally, vulnerability in elders is increased when any of the following characteristics are present:

(a) impairment and isolation,

(b) poverty and pathologic caregivers,

(c) learned helplessness and living in a violent subculture, and

(d) living in deteriorating housing and crime-ridden neighborhoods.

Types of Abuse

1. Physical 16% beatings (battered baby), burning, biting, bruising, head & internal injury, shaken baby syndrome (brain stem & spinal cord injury in 65%-90%).

2. Physical & emotional (failure to show affection to child 7%) neglect from shelter, food clothing, education & access to medical care

3. Emotional

4. Sexual (father & daughter, mother & son or siblings occur in 9%)

Child Neglect

Neglect occurs when the physical, emotional, medical, or educational resources necessary for healthy growth and development are withheld or unavailable. Neglect is obvious to an observer if a very young child is playing unattended outside, is not dressed appropriately for the weather, or has an unkempt appearance. However, neglect is not always so obvious. Parents may refuse to buy eyeglasses for a child who needs them or to access dental care for severely decayed teeth (medical neglect). An 8-year-old may get to school only 3 days a week, possibly without breakfast and no lunch money or packed lunch (educational neglect). A family with three children

may live in a sparsely furnished apartment with very little food available and only intermittent heat and multiple people coming and going in the residence, while the children may appear at school unwashed and without coats in winter weather (general neglect). Emotional neglect may be seen when demands placed on a child are excessive or inappropriate for her development, or the caretaker berates or verbally humiliates a child frequently and without reason.

Signs and Symptoms of Neglect

Neglect may be suspected if one or more of the following conditions exist:

●● The child lacks adequate medical or dental care.

●● The child is often sleepy or hungry.

●● The child is often dirty, demonstrates poor personal hygiene, or is inadequately dressed for weather conditions.

●● There is evidence of poor or inadequate supervision for the child's age.

●● The conditions in the home are unsafe or unsanitary.

●● The child appears to be malnourished.

●● The child is depressed, withdrawn, or apathetic; exhibits antisocial or destructive behavior; shows fearfulness; or suffers from substance abuse or speech, eating, or habit disorders (e.g., biting, rocking, whining).

Child Abuse: by family & relatives

1.In poor families

2.Teenage parents

3.Drug abuse parents

4.Particular child or all children

5.Is a learned transgenerational behavior

In USA 12 per 1000(900000) in 2006 more in girls, 1500 child of them died

Physical Abuse

Physical abuse is intentional harm to a child by another person that results in pain, physical injury, or death. The abuse may include striking, biting, poking, burning,

shaking, or throwing the child. Corporal punishment, which involves violence against a child as a form of discipline. Many parents today were raised in families in which physical punishment was used as a form of discipline. Even today, it is not unusual to see a parent slap the hand of a toddler to get his attention after he has been told not to do something several times or to prevent him from touching something that would hurt him more than a slap on the hand. Most families know where to draw the line. Others—especially if they were raised with "the belt" or "the switch"—see no harm in using the same physical disciplinary practices with their children.

Battered child syndrome defined as "the collection of injuries sustained by a child as a result of repeated mistreatment or beating" . Battered child investigations require thorough follow-up and interviews with caretakers, medical personnel, family members, and school personnel. Investigators should be aware that "a major trait of abusive caretakers is either the complete lack of an explanation for critical injuries or explanations that do not account for the severity of injuries".

Signs and Symptoms of Physical Abuse

Types of Injuries

Types of physical abuse injuries include bruises, burns, bite marks, abrasions, lacerations, head injuries, internal injuries, and fractures.

Behavioral Indicators of Physical Abuse

The following behaviors are often exhibited by physically abused children:

●● The child is frightened of parents/caretakers or, at the other extreme, is overprotective of parent or caretakers.

●● The child is excessively passive, overly compliant, apathetic, withdrawn or fearful or, at the other extreme, excessively aggressive, destructive, or physically violent.

●● The child and/or parent or caretaker attempts to hide injuries; child wears excessive layers of clothing, especially in hot weather; child is frequently absent from school or misses physical education classes if changing into gym clothes is required; child has difficulty sitting or walking.

●● The child is frightened of going home.

●● The child is clingy and forms indiscriminate attachments.

●● The child is apprehensive when other children cry.

●● The child is wary of physical contact with adults.

●● The child exhibits drastic behavioral changes in and out of parental/caretaker presence.

●● The child is hypervigilant.

●● The child suffers from seizures or vomiting.

●● The adolescent exhibits depression, self-mutilation, suicide attempts, substance abuse, or sleeping and eating disorders.

Other indicators of physical abuse may include the following:

●● A statement by the child that the injury was caused by abuse (chronically abused children may deny abuse).

●● Knowledge that the child's injury is unusual for the child's specific age group (e.g., any fracture in an infant).

●● Knowledge of the child's history of previous or recurrent injuries.

●● Unexplained injuries (e.g., parent is unable to explain reason for injury; there are discrepancies in explanations; blame is placed on a third party; explanations are inconsistent with medical diagnosis).

●● A parent or caretaker who delays seeking or fails to seek medical care for the child's injury.

Sexual Abuse

Sexual abuse of children includes Sexual abuse of children includes acts of sexual assault or sexual exploitation استغلال of a minor and may consist of a single incident or many acts over a long period. Sexual assault includes rape, gang عصابة rape, incest, sodomy, لواط acts with a child younger than 14 years of age (in most states), oral copulation جماع, penetration of the genital or anal opening by a foreign object, and child molestation تحرش. Incest is sexual abuse among family members who are related by blood (e.g., parents, grandparents, older siblings, aunts, and uncles); it constitutes the most hidden form of child abuse. Intrafamilial sexual abuse refers to sexual activity involving family members who are not related by blood (e.g., stepparents, boyfriends). In most reported cases, the father or male caretaker is the initiator, and the victim is a female child

Indicators of Sexual Abuse

I. History of Sexual Abuse

● A child confides to a friend, classmate رفيق الصف, teacher, a friend's mother, or other trusted adult that she/he has experienced sexual abuse.

●● A child may disclose information indirectly by such statements as: "I know someone …""What would you do if … ?" "I heard something about somebody…"

●● The child has torn, stained, or bloody underclothing (among her/his clothing or is wearing it).

●● Knowledge that a child's injury/disease (vaginal trauma, sexually transmitted disease) is unusual for the specific age group.

●● Unexplained injuries/diseases (parent/caretaker unable to explain reason for injury/disease); there are discrepancies in explanation; blame is placed on a third party; explanations are inconsistent with medical diagnosis.

●● A very young girl is pregnant or has a sexually transmitted disease. Pregnancy alone does not constitute sexual abuse, but if there are indications of coercion or significant age disparity between the minor and her partner, this may lead to reasonable suspicion of sexual abuse that must be reported.

II. Sexual Behavioral Indicators of Sexually

Abused Children

●● Detailed and age-inappropriate understanding of sexual behavior (especially among very young children)

●● Sexually explicit واضح language

●● Inappropriate, unusual, or aggressive sexual behavior with peers or toys

●● Compulsive indiscreet احمق masturbation العادة السرية

●● Excessive curiosity about sexual matters or genitalia (self or others)

●● Unusually seductive مغري behavior with classmates, teachers, and other adults

●● Excessive concern about homosexuality, especially by boys

III. Behavioral Indicators of Sexual Abuse in Younger Children

●● Enuresis (wetting pants or bedwetting)

●● Fecal soiling

●● Eating disturbances such as overeating or undereating

●● Fears or phobias

●● Overly compulsive behavior

●● School problems or significant change in school performance (attitude and grades)

●● Age-inappropriate behavior that includes pseudomaturity or regressive behavior such as bedwetting or thumb sucking

●● Inability to concentrate

●● Sleeping disturbances (nightmares, fear of falling asleep, fretful sleep pattern, sleeping long hours)

●● Drastic behavior changes

●● Speech disorders

●● Frightened of parents/caretaker or of going home or being at home

IV. Behavioral Indicators of Sexual Abuse in Older Children and Adolescents

●● Withdrawal

●● Chronic fatigue

●● Clinical depression, apathy

●● Overly compliant behavior

●● Over- or under reaction (hysteria or cavalier attitude) to a genital exam

●● Poor hygiene or excessive bathing

●● Poor peer relations and social skills; inability to make friends

●● Acting out; running away; aggressive, antisocial, or delinquent behavior

●● Alcohol or drug abuse

●● Prostitution or excessive promiscuity

●● School problems, frequent absences, sudden drop in school performance

●● Refusal to change clothes for physical education class

●● Nonparticipation in sports and social activities

●● Fearful of showers or restrooms

●● Fearful of home life as demonstrated by arriving at school early and leaving late

●● Suddenly fearful of other things (going outside or participating in familiar activities)

●● Extraordinary fear of males (in cases of male perpetrator and female victim)

●● Self-consciousness of body beyond that expected for age

●● Sudden acquisition of money, new clothes, or gifts with no reasonable explanation

●● Suicide attempt or other self-destructive behavior

●● Crying without provocation

●● Setting fires

V. Physical Symptoms of Sexual Abuse

●● Sexually transmitted diseases, especially in prepubescent girls

●● Genital discharge or infection

●● Physical trauma or irritation to the anal/genital area (pain, itching, swelling, bruising, bleeding, lacerations, abrasions), especially if injuries are unexplained or there is an inconsistent explanation

●● Pain during urination or defecation

●● Difficulty in walking or sitting due to genital or anal pain

●● Psychosomatic symptoms (stomach aches, headaches, chronic pain)

Emotional Abuse

Emotional abuse of children involves psychological mistreatment or neglect, such as when parents do not provide the normal experiences that produce feelings of being loved, wanted, secure, and worthy. This type of abuse is commonly associated with other types of abuse and may involve verbal abuse, such as name calling, belittling, or threatening. A mother may shout at the child, “You’re just like your father, a good-for-nothing, lazy bum.” A father may say, “You’re ugly. You look just like your mother.” If the child spills some juice, a parent may scream, “Everything you do, you do wrong. Can’t you do anything right?”

Emotional abuse may also take the form of emotional abandonment. Some parents “shun” ينأى بنفسهtheir children as a form of punishment. They will not speak to them and do not look at them; they behave as if their child does not exist. This behavior may continue for a day or longer, whenever a child displeases the parent. In some cases, the shunning lasts for days. Verbal threats, are also a form of emotional abuse. the parent may have beaten the child with a belt in the past, so merely threatening to use the belt again causes emotional trauma.

Emotional abuse alone is rarely reported because it is another “hidden” form of abuse. people who have a responsibility for the welfare of children and include public and private school employees; administrators and employees of youth centers and recreation programs; child welfare employees; foster parents; group home and residential facility personnel; social workers; probation workers; health care workers including nurses, doctors, and chiropractors; animal control workers; and personnel working in film development laboratories,.

Signs and Symptoms of Emotional Abuse or Deprivation

Emotional abuse should be suspected if the child displays the following behavioral indicators:

●● Is withdrawn, depressed, or apathetic

●● Is clingy and forms indiscriminate attachments

●● “Acts out” and is considered a behavior problem

●● Exhibits exaggerated fearfulness

●● Is overly rigid in conforming to instructions of teachers, doctors, and other adults

●● Suffers from sleep, speech, or eating disorders

●● Displays signs of emotional turmoil that include repetitive, rhythmic movements (rocking, whining, picking at scabs)

●● Pays inordinate attention to details or exhibits little or no verbal or physical communication with others

●● Suffers from enuresis and fecal soiling

●● Unwittingly makes comments such as “Mommy always tells me I’m bad”

●● Experiences substance abuse problems Emotional deprivation should be suspected if the child

●● Refuses to eat adequate amounts of food and therefore is very frail

●● Is unable to perform normal learned functions for a given age (e.g., walking, talking)

●● Displays antisocial behavior (aggression, disruption) or obvious delinquent behavior (drug abuse, vandalism); conversely, the child may be abnormally unresponsive, sad, or withdrawn.

●● Constantly “seeks out” and “pesters” other adults such as teachers or neighbors for attention and affection

●● Displays exaggerated fears in the institution.

Other Forms of Family Violence

Three other forms of violence that directly affect families are suicide, homicide, and rape. These three forms

of violence demonstrate the ultimate extreme of violence to the victim and are the most traumatic to the surviving

family members.

Prevention of Violence:

Primary Prevention: Promotion of optimal & family wellness by:

1. Family life education in schools & communities

2. Education on method of conflict resolution

3. Parenting classes on hospital, schools &

4. Preventive mental health services

5. Community education on violence

6. Reduction of media violence

7. Sheltered of battered woman & their children

8. handgun control

Secondary Prevention: diagnosis & services of families in stress

1. All health care setting must have nursing assistance of violence

2. Safety plan for victim

3. Knowledge of legal action

4. Shelter or foster home for victim

5. Social services of individual & family

6. Self help group

7.hospital emergency department (reporting, case intake, coordinating, legal)

8. Death review team for infant & children

9. Evaluation of violence

10. handgun control

Tertiary Prevention: reduction & rehabilitation of violent families

1.Counseling services

2.Training in child rearing

3.Self help group

4.Foster homes

5.Follow up of known cases of abuse, neglect & violence .

School Violence

An area of growing concern regarding violence against children has been in school settings. Violence in schools may range from bullying, slapping, or punching to weapon use. Random shootings and hostage situations in schools over the past decade have fueled fears about the safety of students and promoted research into how to prevent this type of community violence affecting children. School must have the following:

provide funding, programs, and trainings that improve school safety through the *Safe Schools Healthy Students*

as an initiative. **Six areas** identified for attention in building safe school climates are:

●● Creating a safe school environment

●● Providing alcohol, drug, and violence prevention and early intervention programs

●● Supporting school and community mental health prevention and treatment intervention services

●● Providing early childhood psychosocial and emotional development programs

●● Addressing education reform

●● Designing safe school policies