DISASTER PREPAREDNESS PLAN
MASS CASUALTY
PHARMACY

revised November 1997
(c:\Pharmacy\DisasterPreparedness\Mass Casualty Plan Pharmacy)

MASS CASUALTY EMERGENCY ACTION CHECKLIST
PHARMACY
RESPONSE TO MASS CASUALTY EVENT

ACTION	DATE	Time	C	REMARKS	I
Alert Phase					
1. Received Phone call 1.1. Who 1.2. What 1.3. When 1.4. Location of AMP 1.5. How many (***Medication Kit*** for ~10 casualties)					
2. Close Pharmacy to Public					
3. Take ***Medication Kit*** to AMP (AMP coordinator)					
4. Proceed to Mass Casualty Warehouse and help with mobilization of supplies to the AMP					
5. Re-assess drug needs after each wave of casualties.					
After AMP closes					
1. Report Number of Medications utilized to Coordinator					
2. Prepare an Emergency Needs List					
3. Replenish ***Medication Kit*** and Mass Casualty drug stocks (IVs etc.) as necessary					

Legend T=Time C=Check mark I=Initial HSM=Health Services Manager

ESSENTIAL DRUG SUPPLIERS

Supplier	*Contact*	*Address*	*Phone*	*Fax*
Collins	Mr. Neville Watson	Barbadose		246-424-9182
Adrianna Pharm.	Mr. David J. Leonhardt	Florida	954-749-0411	954-749-0413
Baxter (IV solutions)	Maritza Penzo de Achecar	Santo Domingo, Republica Dominicana	809-565-2632	809-547-1613
Schering (Puritab Maxi tabs)	Joselin A Rodriguez Product Manager	Santo Domingo Republica Dominicana	809-221-8222	809-682-5881

MASS CASUALTY PLAN FOR THE PHARMACY

The following is an action plan for Pharmacy in a Mass Casualty event

Before Mass Casualty Events

1. Review Mass Casualty Plan for the Pharmacy and update if necessary.
2. Review plan with staff.
3. Monthly check the ***Medication Kit*** for expired drugs

Mass Casualty Event

Alert Phase

1.1. Complete Mass Casualty Emergency Action Checklist

1.2. Record Alert Phone call to the pharmacy

1.2.1. Who? Is the person authorized to alert the pharmacy to initiate the plan?

1.2.2. When? Record the time notified.

1.2.3. Where? Where will the AMP be located?

1.2.4. How many casualties expected? Will extra supplies be needed? *Medication Kit* hold enough supplies for ~10 casualties.

Stand By Phase

1.3. Close the pharmacy to the public and go on standby for emergency access to stock.

1.4. Take the ***Medication Kit*** to the AMP coordinator at the AMP

1.5. Proceed to Mass Casualty Warehouse and help with mobilization of supplies to the AMP

1.6. Re-assess drug needs after each wave of casualties.

After the AMP Closes

1.7. Report Number of Medications utilized during the event to AMP coordinator

1.8. Prepare an Emergency Needs List to replace stocks

1.9. Replenish ***Medication Kit*** and Mass Casualty drug stocks (IVs etc.) as necessary

1.10. Coordinate with the command center and stores clerk regarding the receipt, sorting, storage and disposing of relief drug supplies.

NB: Laminate and post in the pharmacy

Mass Casualty Exercise

Mobilization of Stocks to AMP

- Notification of Alert
- Access to stores
- Transportation
- Manpower
- Notification of number of expected casualties

Organization of Stocks

- Mass Casualty Stores
  - Clearly mark Red stock/Yellow stock/Green stock
- AMP
  - Red
  - Yellow
  - Green

Replenishment of Stock

- Who requests replacements and when?
- Transportation

Mass Casualty Emergency Stock

(AMP Supplies)

Medication	Quantity	Exp. Date
Ambu Bags and Masks Adult	5	
Ambu Bags and Masks Pediatric	3	
Betadine 10%	1000ml	Jul-99
Burn Bags (see inventory sheet)	6	
Cervical Extrication Collars (assorted sizes)	2 sets	
Chest Drain Kits	*	
Dextrose 5% 500ml	48	Aug-98
ET Tubes (5-6-7-8-9)	2 of each	
First Aid backpack (see inventory sheet)	6	
First Aid metal box (see inventory sheet)	4	
Generator Set and Cables	*	
Geudel Airway (various sizes)	5	
Gloves, size 7 Sterile	80	Sep-00
Gloves, size 8 Sterile	80	Sep-00
Haemacel Solution 500ml	48	Oct-00
Humidifier	6	
IV Administration sets 15drops/ml	50	
IV Cannulas 14G,16G,20G,22G	25 of each	
IV Drip Stands	10	
Lactated Ringer (Hartman's Soln.) 1000ml	60	Mar-98
Medic Bags (see inventory sheet)	6	
Miscellaneous Box (see inventory sheet)	1	
Oxygen, Large Cylinder	1	
Oxygen, Small Cylinder	5	
Oxygene Masks (Adult and Pediatric)	10 of each	
Salbutamol Inhalers 200 Metered Doses	20	Mar-99
Silver Sulfadiazine 1% cream 50gm	36	Nov-98
Splints , arms	4	
Splints, legs	4	
Strechers	6	
Suction Machine Manual	*	
Sutures (2/0 silk)	2 boxes	Oct-00
Syringes 10mls with needles	1 box	Apr-98
Syringes 5ml with needles	1 box	Apr-98
Traecheotomy Sets	3	
Triage Tags	1	
Water for Injection 5mls	60	Feb-98

* Materials which should be added to stock at MDF warehouse

AMP Stock Management

Supplies	Red		Green
Ambu Bags and Masks Adult	5		
Ambu Bags and Masks Pediatric	3		
Betadine 10%	1000ml	1000ml	1000ml
Burn Bags (see inventory sheet)	2	3	1
Cervical Extrication Collars (assorted sizes)	1	1	
Chest Drain Kits	*		
Dextrose 5% 500ml	24	24	
ET Tubes (5-6-7-8-9)	2 of each		
First Aid backpack (see inventory sheet)	2	2	2
First Aid metal box (see inventory sheet)	1	2	1
Generator Set and Cables			
Geudel Airway (various sizes)	5	1	
Gloves, size 7 Sterile	1 box	1 box	1 box
Gloves, size 8 Sterile	1 box	1 box	1 box
Gloves, Non-Steril Medium	1 box	1 box	1 box
Haemacel Solution 500ml	24	24	
Humidifier	6		
IV Administration sets 15drops/ml	25	25	
IV Cannulas 14G,16G,20G,22G	25 of each	25 of each	
IV Drip Stands	5	5	
Lactated Ringer (Hartman's Soln.) 1000ml	30	30	
Medic Bags (see inventory sheet)	2	2	2
Miscellaneous Box (see inventory sheet)			
Oxygen, Large Cylinder	1		
Oxygen, Small Cylinder	4	1	
Oxygene Masks (Adult and Pediatric)	10 of each		
Salbutamol Inhalers 200 Metered Doses	2	9	9
Silver Sulfadiazine 1% cream 50gm	12	12	12
Splints , arms		2	2
Splints, legs		2	2
Strechers	2	2	2
Suction Machine Manual	1*		
Sutures (2/0 silk)	1	1	
Syringes 10mls with needles	1 box	1 box	
Syringes 5ml with needles	1 box	1 box	
Traecheotomy Sets	3		
Triage Tags			
Water for Injection 5mls	30	30	

* Materials which should be added to stock at MDF warehouse

Mass Casualty Drug Kit

Medication	Quantity	Exp. Date
Adrenaline 1mg/ml 5ml injection	10	Sep-98
Aminophylline 250mg/10ml injection	2	Jun-98
Ampicillin 500mg IV injection	15	Sep-98
Atropine 1mg/ml injection	10	Apr-98
Bacitracin/Neomycin Ointment	2	Nov-99
Cephradine 500mg IV injection	10	Sep-99
Chloramphenicol Eye Ointment	5	Jul-01
Chloramphenicol Eye Drops	5	Jun-00
Cloxacillin 500mg IV injection	15	Apr-98
Diazepam 5mg tablets	50	Apr-98
Dimenhydrinate 50mg/ml injection	5	Apr-99
Furosemide 20mg/2ml injection	6	Oct-98
Gentamycin 80mg/2ml injection	20	Jun-98
Hydralazine 20mg/ml injection	5	Mar-99
Hydrocortisone Succinate 100mg inject	2	Jul-00
IV administration sets	2	
Lidocaine 1% 50ml	2	Apr-99
Lidocaine 2%+ Epinephrine 50ml	1	Sep-98
Metoclopramide 10mg in 2mls	10	Dec-97
Midazlam 5mg/ml 2ml injection	10	Oct-97
Morphine Sulphate 10mg/ml injection	20	May-00
Nifedipine 10mg capsules	90	Oct-98
Oral Rehydration Salts (1 liter)	100	
Paracetamol 1gm injection	10	Apr-99
Paracetamol 300mg + Codeine 30mg ta	25	Oct-00
Pentazocine 30mg/ml injection	20	Jun-99
Pethidine 100mg in 2mls injection	20	Mar-99
Sodium Bicarbonate 8.4% 50ml	1	Dec-97
Water for injection 100ml	2	Jul-00

Updated: 4 November 1997 by mm

Emergency Burn Bags

Medication	Quantity	Exp. Date
Bandage Scissors	5	
Bandaging Cloth 800 X 1200mm	3	Jun-00
Burn Bag, Sterile for hands and feet	10	
Burn Dressing, Sterile 30cm X 30cm	14	
Burn Dressing, Sterile 600 X 800mm	6	Jun-00
Burn Dressing, Sterile Large w/antise	11	
Burn Kling w/Emergency Dispenser	1	
Burn Sheet, Sterile,Limb 92 X 75cm	5	
Burn Sheets,Sterile Small 60 X 45cm	8	
Contour Bandage 10cm X 4m	10	
Face Mask dressing	3	
Sodium Chloride 0.9% for irrigation	8	Feb-99
Surgical Tape 12.5mm X 5m	2	
Surgical Tape 25mm X 5m	2	

Medic Bags

Medication	Quantity	Exp. Date
Alcohol Free Cleansing Wipes	45	
Anti-bacterial Cleansing Wipes	45	
Dressing Retention Sheet 15cm X 10m	1	
IV administration sets w/filters	10	Jan-01
IV Cannulas 18G/45mm (80ml/min)	20	Dec-00
Needles 21G X 1 1/2"	20	
Needles 23G X 1 1/4"	10	
Sodium Chloride 0.9% for irrigation	2	Feb-99
Syringes 10ml	20	
Syringes 5ml	10	

First Aid BackPack

Medication	Quantity	Exp. Date
Adsorbent Dressing, Sterile 10cm X 10cm	13	
Adsorbent Dressing, Sterile 5cm X 5cm	3	
MacIntosh Blade (Laryngoscope)	1	
Antibacterial Cleansing Wipe	20	
Band-Aids assorted	35	
Bandage Scissors	2	
Bandaging Cloth 800 X 1200mm	2	
Clamp	1	
Click-Open	1	
Contour Bandage 10cm X 4m	8	
Cotton Stretch Bandage 7.5cm X 4.5m	2	
Cotton Wool 25gm	4	
Dressing, Sterile 32cm X 20cm	2	
Dressing, Sterile Extra Large 275mm X 200mm	3	
Dressing, Sterile Medium 125mm X 100mm	2	
Elastoplast Microporous tape 2.5cm X 4.5m	1	Jan-99
Elbow Immobilizer	1	
Endotracheal Intubation Stylet	1	
Eye Pads, sterile No. 16	4	
Fabric dressing strips (Band-Aids) 6cm X 1m	1	
Face Mask Dressing	1	
Gloves, Non sterile	6 pairs	
IV Administration Sets w/ filters	2	Jan-01
IV Cannulas 14G/45mm	2	
IV Cannulas 17G/45mm	2	
IV Cannulas 20G/32mm	2	
Laryngoscope with batteries	1	
Lint Dressing ,Medium Plain No. 8	6	
Lint Dressing,Large Plain No. 9	4	
Non Woven Swabs 7.5cm X 7.5cm	200	
Oxygene tubing for tracheal tubes	2	
Paracetamol 500mg tablets	1000	Nov-98
Peripheral Line Dressing w/transparent membran	2	
Ribbon Gauze 1.25cm X 5m	1	
Sam Splints	9	
Savlon Dry Spray	1	Jan-98
Scissors	1	
Sharps Container	1	
Sodium Chloride 0.9% for Irrigation 500ml	1	Feb-99

Sodium Chloride Ph.Eur.0.9% sterile wash 150ml	**1**	
Sphygmomanometer/Stethoscope/Pen Torch	**1**	
Surgical Tape (micropore) 25mm X 5m	**2**	
Syringes 10ml	**2**	
Syringes 2ml	**2**	
Syringes 5ml	**2**	
Tournique	**1**	
Tracheal Tube 5	**1**	
Tracheal Tube 6	**1**	
Tracheal Tube 7	**1**	
Tracheal Tube 8	**1**	
Tracheal Tube 9	**1**	
Triangular Bandages	**12**	
Vent Aid (for mouth to mouth resuscitation)	**1**	
Waterproof First Aid Dressing, assorted	**14**	
Wound Closure Strips 4mm X 38mm 8 strips	**2**	
Wound Closure Strips 4mm X 76mm 4strips	**2**	

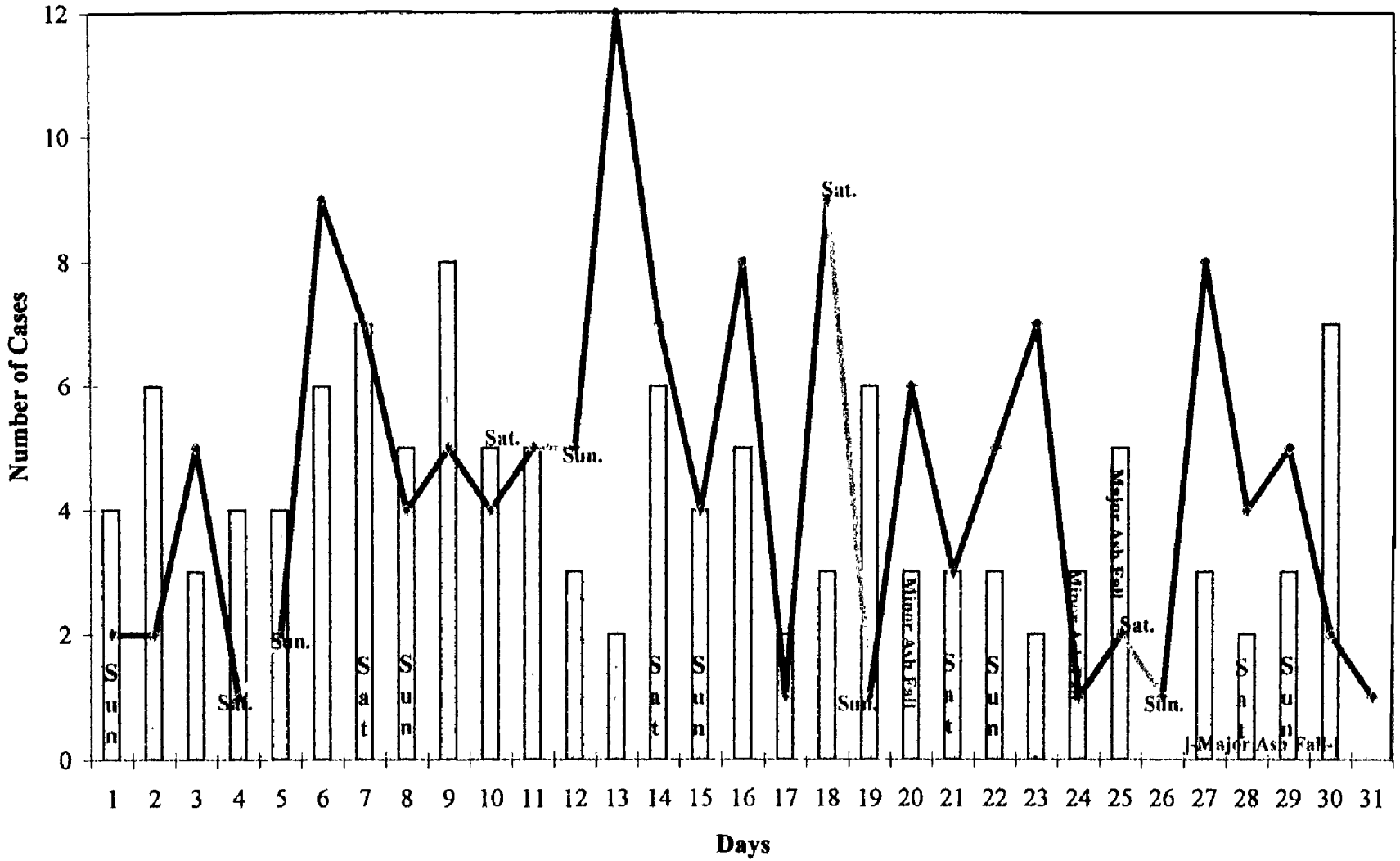
First Aid Box

Medication	Quantity	Exp. Date
Adhesive tape 1/2" x 5yds	1	
Burn Septic Spray 3oz	2	Nov-98
Chemical Cold Packs	4	
Conform Bandage 2" x 5yds	2	
Derma Cool Burn Dressing 14" x 18"	1	
Derma Cool Burn Dressing 24" x 36"	1	
Derma Cool Burn Wrap 3" x 36"	4	
Derma Cool Burn Wrap 8" x 36"	2	
Gauze pads, Sterile	4	
Gauze tape 1/2" (blue)	1	
Gloves, Non sterile	4 pairs	
Isotonic Buffered Eyewash 4oz	4	Feb-99
Neomycin/Polymixin-B/Lidocaine cream 1gm	12	Jan-97
Non-adhesive sterile pads 2" x 3"	20	
Scissors	1	

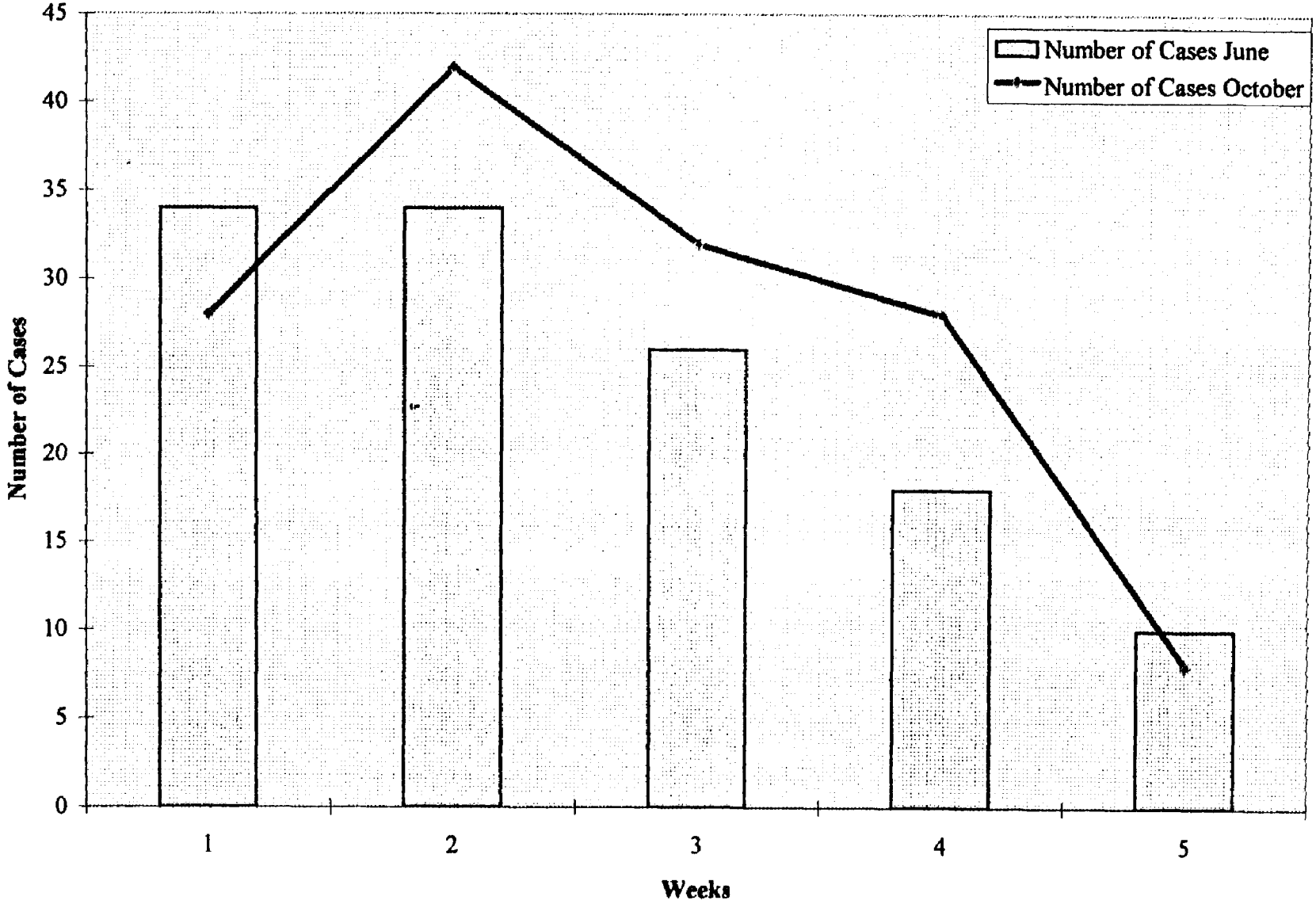
Miscellaneous Supplies

Description	Quantity	Exp. Date
Ky-Jelly	6	
Bibs		
Tape		
Torch light		
Markers, Non-Permanent		
Writing Pads		
History Sheets		
Trauma Sheets		
Drug Sheets		
Pens		

Casualty ARTI Cases by Day
June versus October 1997



Casualty ARTI Cases by Week
June versus October 1997

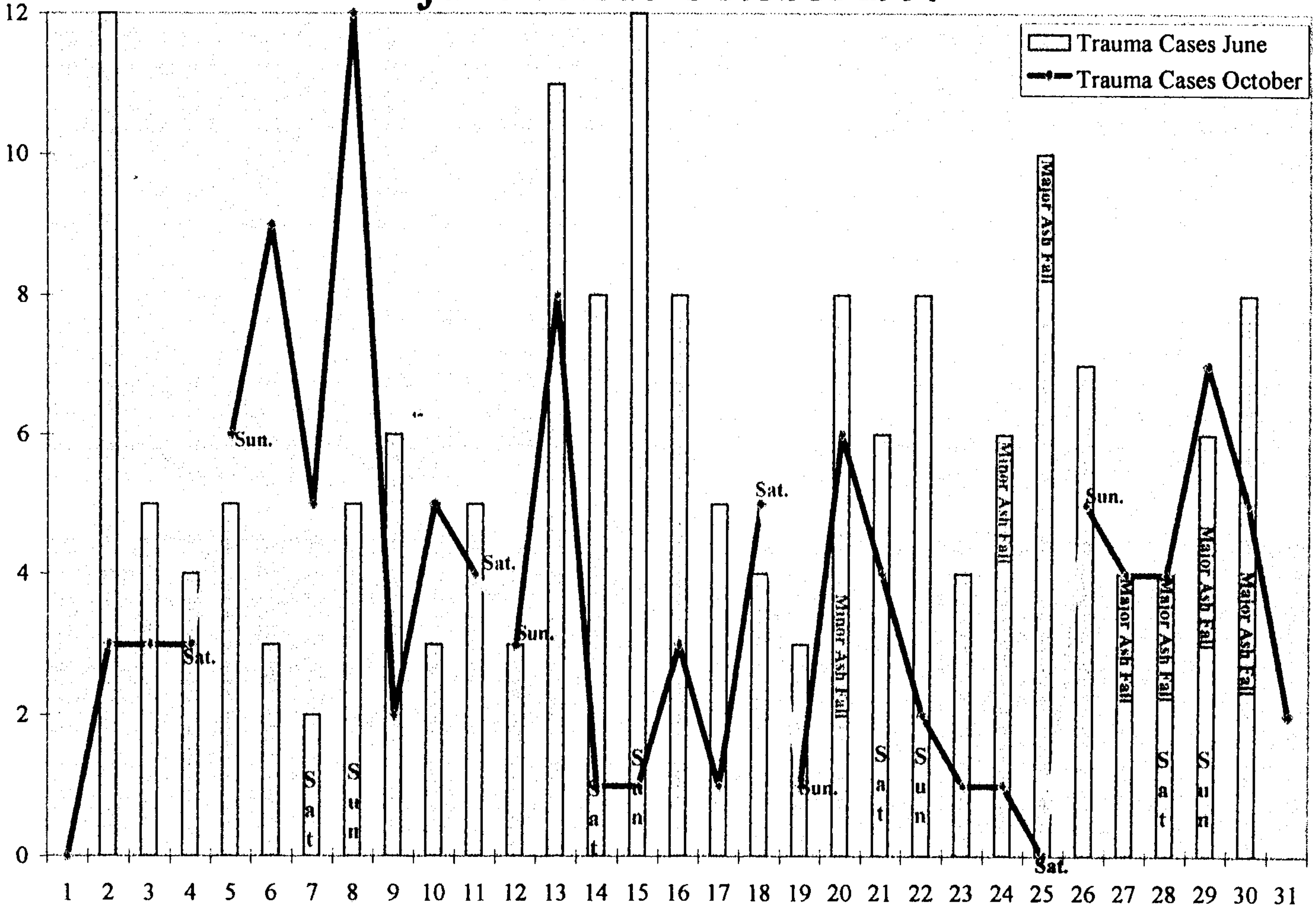


Casualty ARTI Cases
June versus October 1997

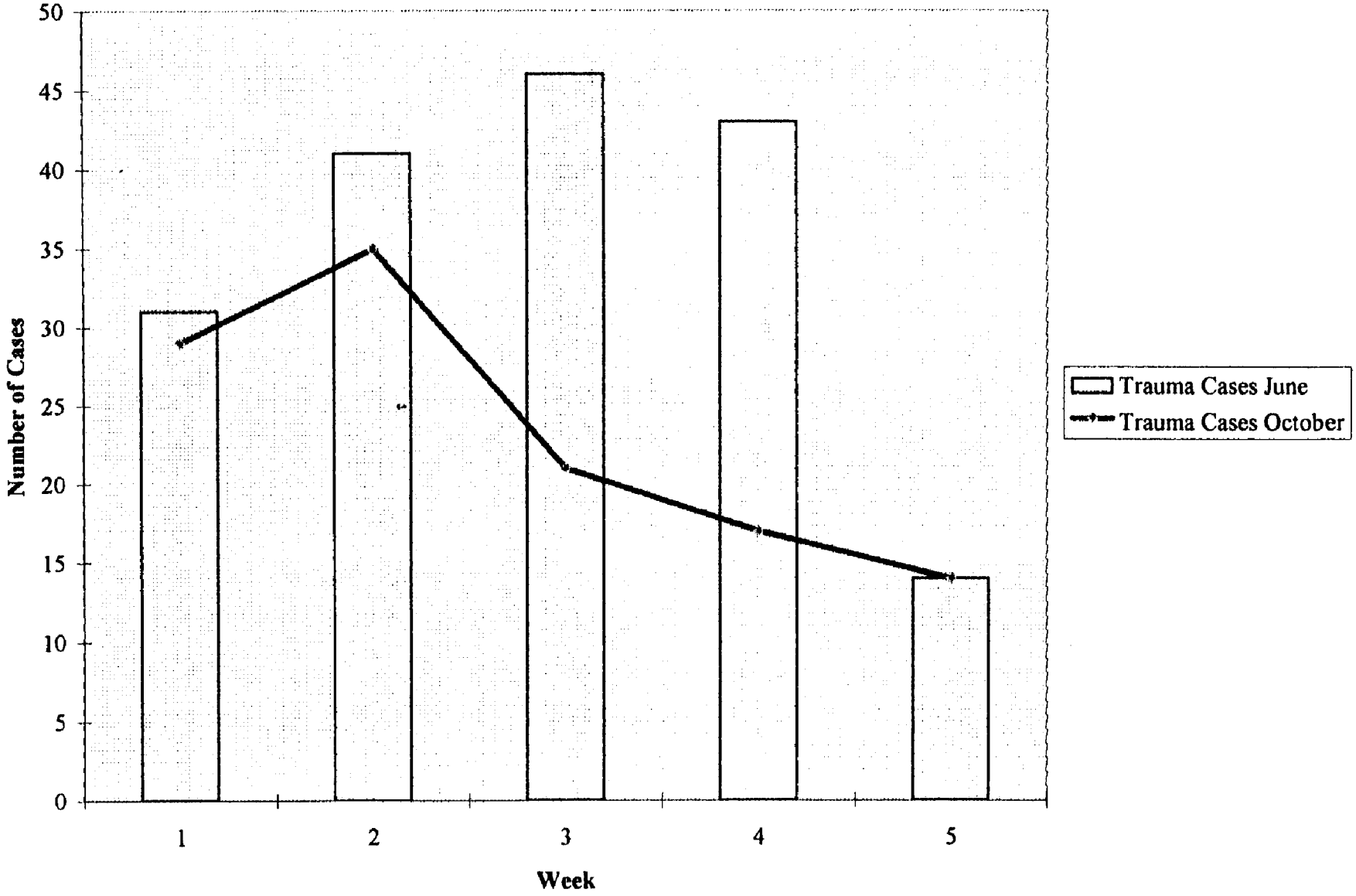
DATE	Number of Cases June	Number of Cases October
1	4	2
2	6	2
3	3	5
4	4	1
5	4	2
6	6	9
7	7	7
8	5	4
9	8	5
10	5	4
11	5	5
12	3	5
13	2	12
14	6	7
15	4	4
16	5	8
17	2	1
18	3	9
19	6	1
20	3	6
21	3	3
22	3	5
23	2	7
24	3	1
25	5	2
26	0	1
27	3	8
28	2	4
29	3	5
30	7	2
31	0	1
TOTAL	**122**	**138**

	Number of Cases June	Number of Cases October
week1	34	28
week2	34	42
week3	26	32
week4	18	28
week5	10	8
Total	**122**	**138**

Casualty Trauma Cases
June versus October 1997



Casualty Trauma Cases By Week
June versus October 1997



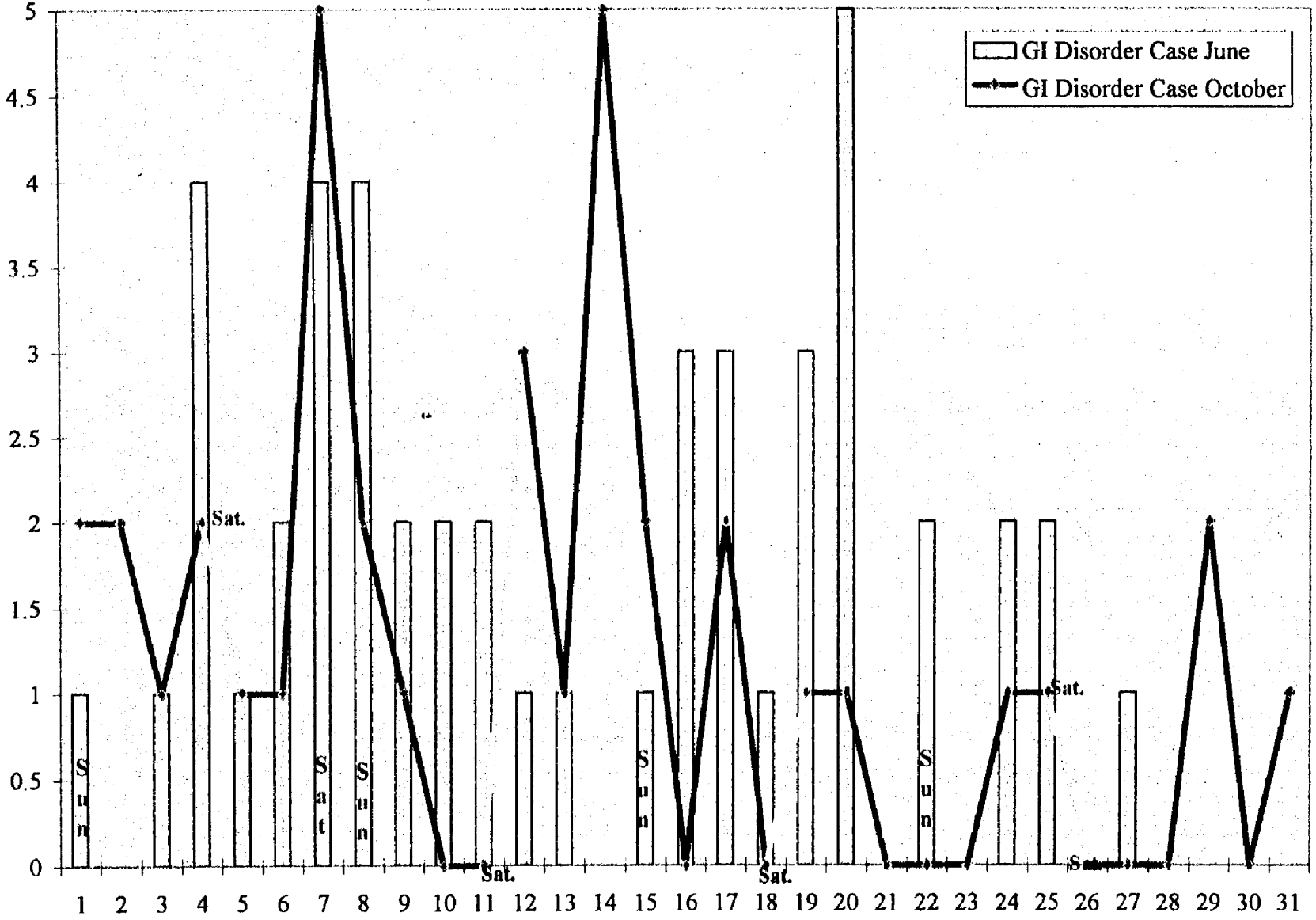
Casualty Trauma Cases
June versus October 1997

DATE	Trauma Cases June	Trauma Cases October
1	0	0
2	12	3
3	5	3
4	4	3
5	5	6
6	3	9
7	2	5
8	5	12
9	6	2
10	3	5
11	5	4
12	3	3
13	11	8
14	8	1
15	12	1
16	8	3
17	5	1
18	4	5
19	3	1
20	8	6
21	6	4
22	8	2
23	4	1
24	6	1
25	10	0
26	7	5
27	4	4
28	4	4
29	6	7
30	8	5
31		2
Totals	**175**	**116**

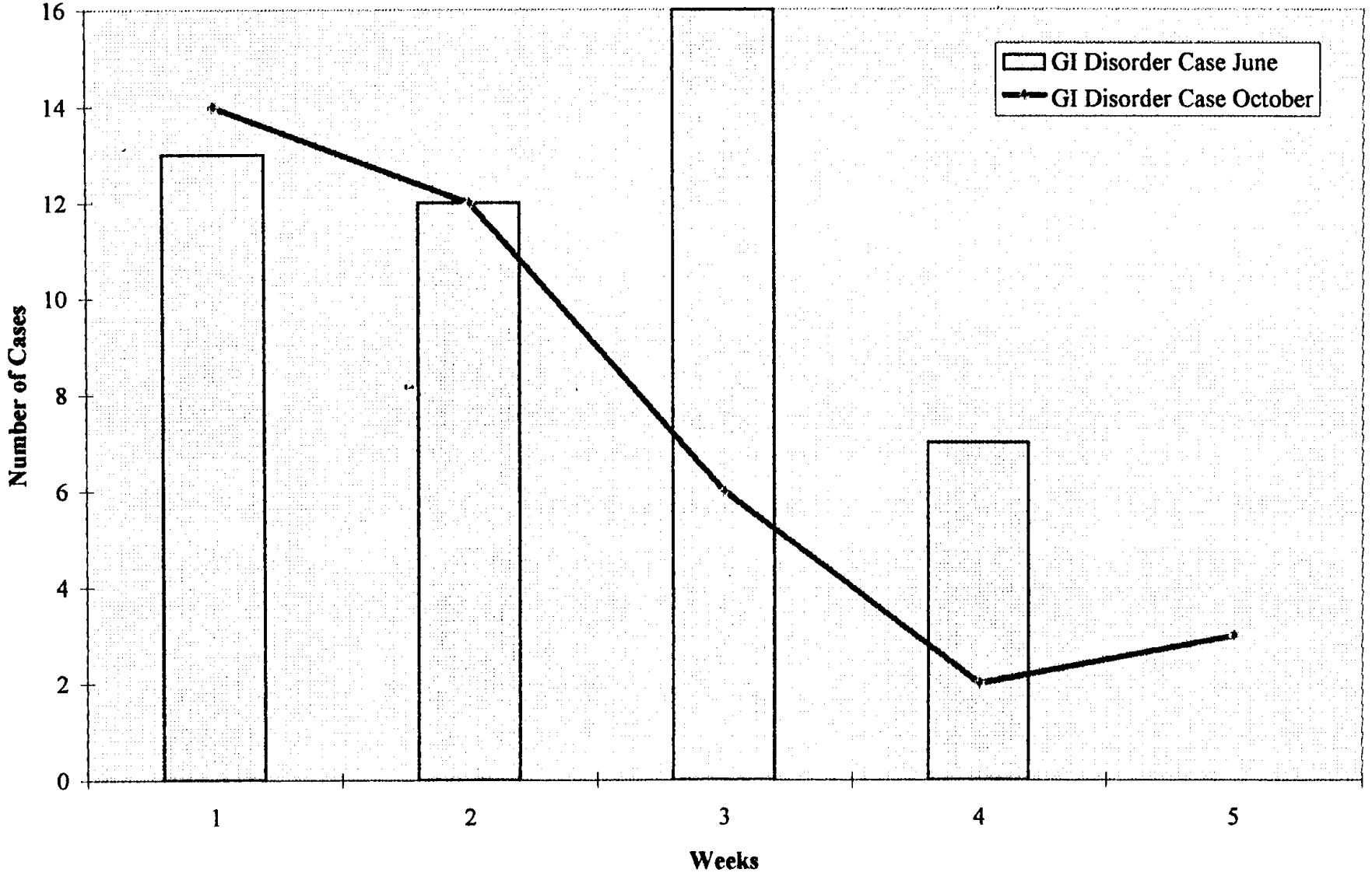
	Trauma Cases June	Trauma Cases October
week1	31	29
week2	41	35
week3	46	21
week4	43	17
week5	14	14
Total	**175**	**116**

291

Casualty Digestive Tract Disorders Cases by Day
June versus October 1997



Casualty Digestive Tract Disorders Cases by Week
June versus October 1997

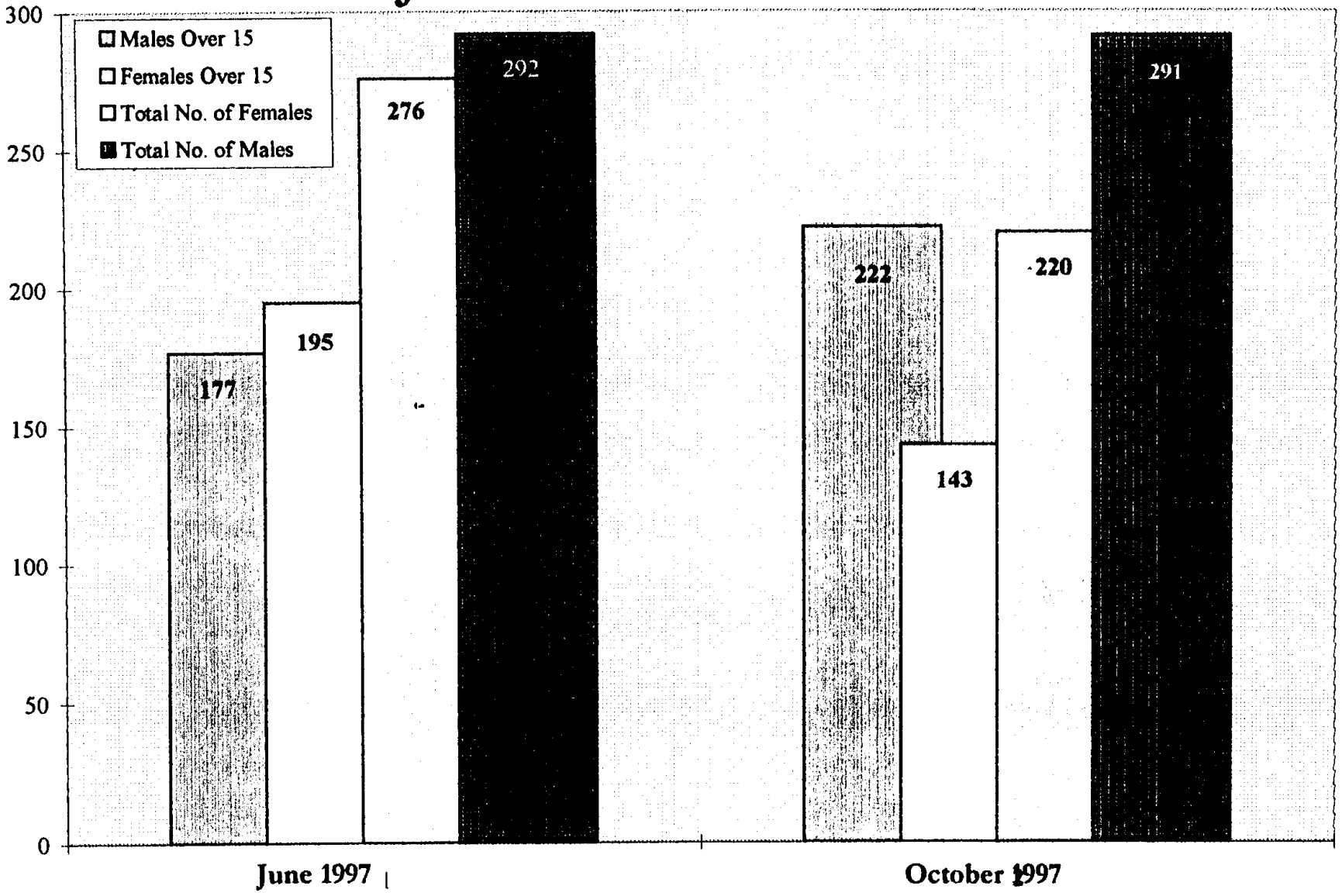


Casualty Digestive Tract Disorders
June versus October 1997

DATE	GI Disorder Case June	GI Disorder Case October
1	1	2
2	0	2
3	1	1
4	4	2
5	1	1
6	2	1
7	4	5
8	4	2
9	2	1
10	2	0
11	2	0
12	1	3
13	1	1
14	0	5
15	1	2
16	3	0
17	3	2
18	1	0
19	3	1
20	5	1
21	0	0
22	2	0
23	0	0
24	2	1
25	2	1
26	0	0
27	1	0
28	0	0
29	0	2
30	0	0
31	0	1
Totals	**48**	**37**

	GI Disorder Case June	GI Disorder Case October
week1	13	14
week2	12	12
week3	16	6
week4	7	2
week5	0	3
Total	**48**	**37**

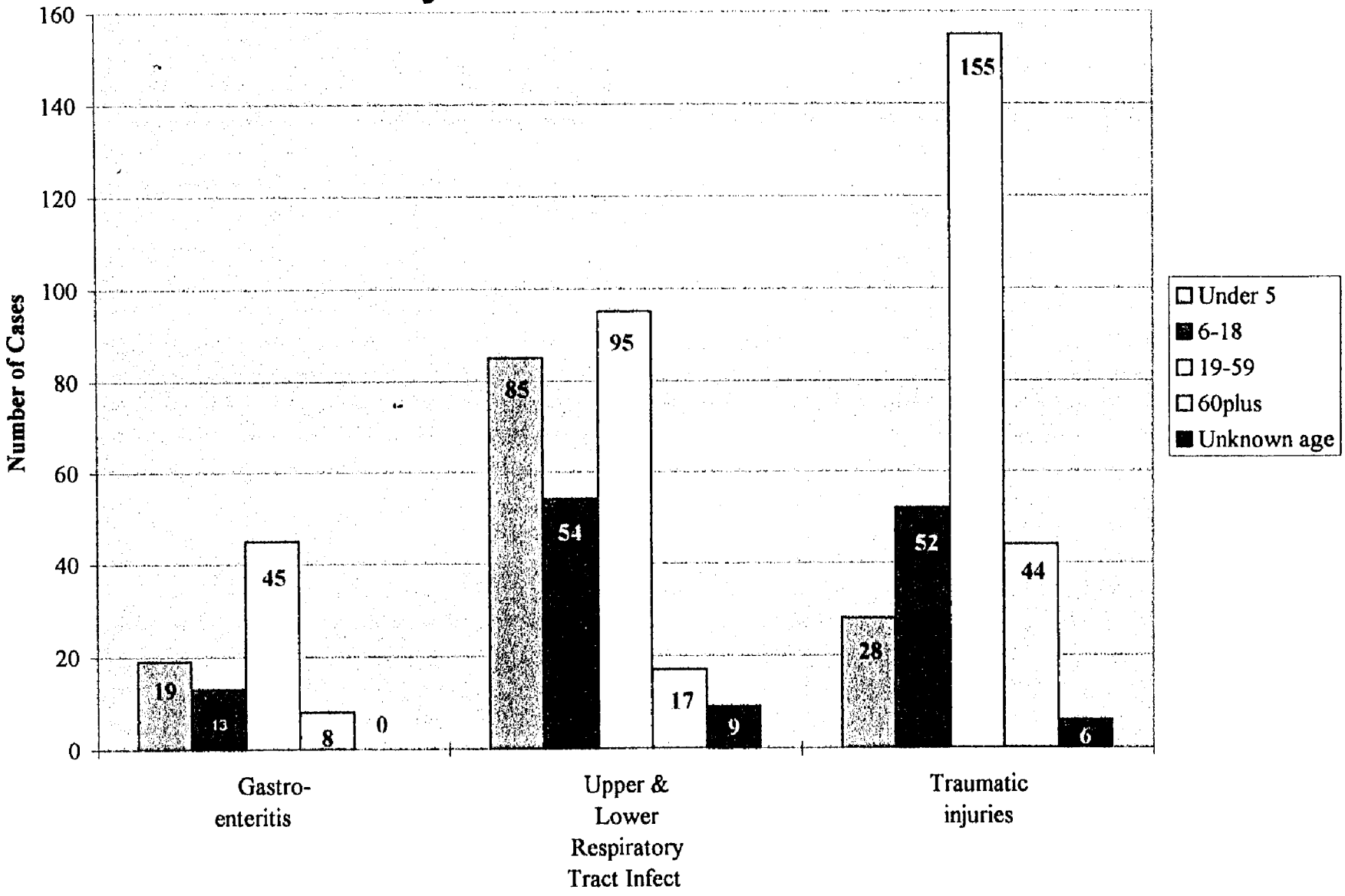
Casualty Cases by Gender
June versus October 1997



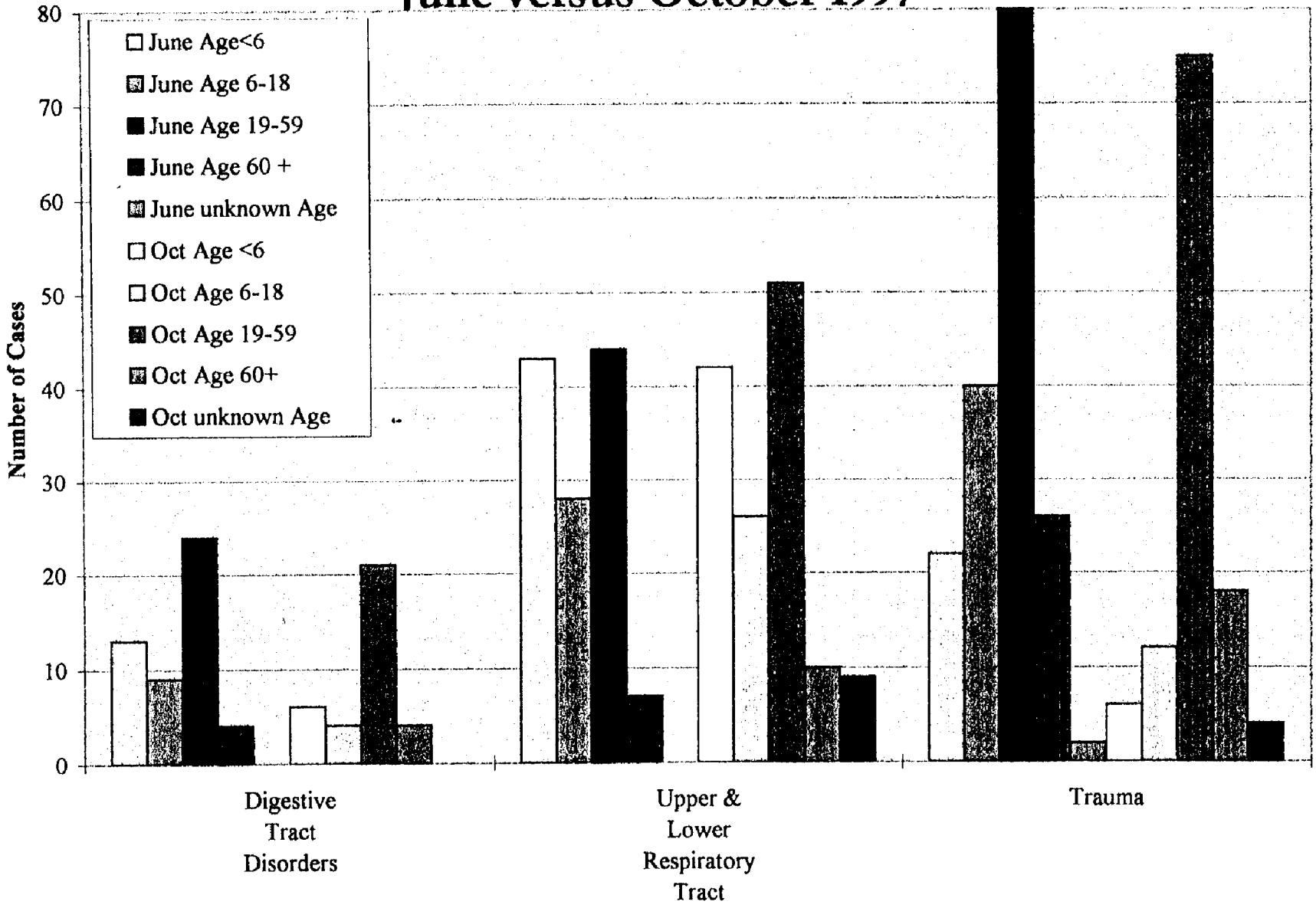
Casualty Cases by Gender
June versus October 1997

Month	Males Over 15	Total No. of Males	Females Over 15	Total No. of Females	Unrecorded
Jun-97	177	292	195	276	0
Oct-97	222	291	143	220	2
Totals	**399**	**583**	**338**	**496**	**2**

Casualty Cases by Age Group
June and October 1997



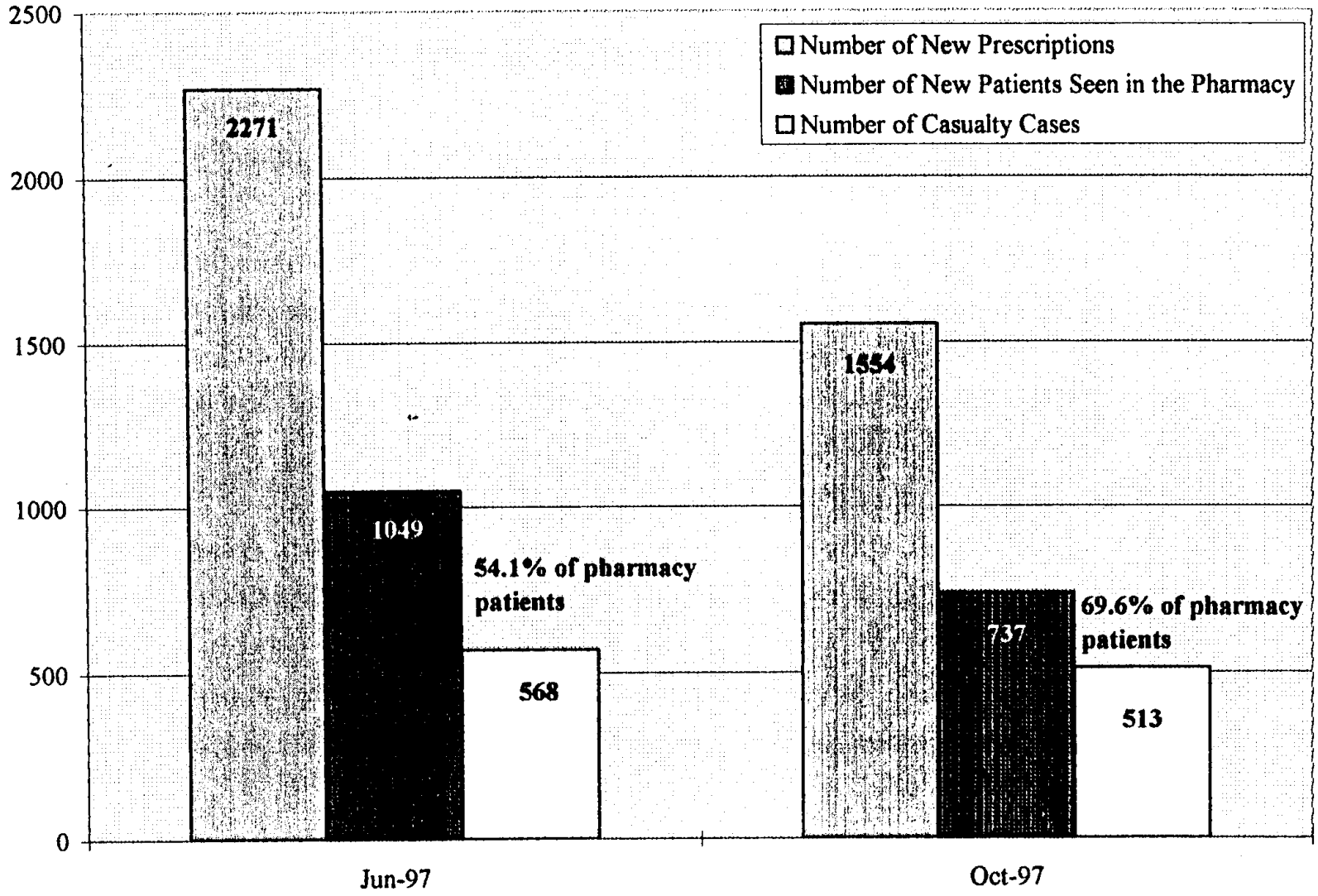
Casualty Cases by Age and Diagnosis
June versus October 1997



Casualty Cases by Age and Diagnosis June and October 1997

DIAGNOSIS	Under 5	6-18	19-59	60plus	Unknown age	Total cases
Gastro-enteritis	19	13	45	8	0	85
Upper & Lower Respiratory Tract Infect						
Asthma	85	54	95	17	9	260
Traumatic injuries	28	52	155	44	6	285
Total cases	173	163	502	209	34	1081
				Total cases		1081

Pharmacy Statistics
June versus October 1997



NB: Statistics do not include repeat prescriptions filled during these months

Pharmacy Statistics
June versus October 1997

Pharmacy	Jun-97	Oct-97
Number of New Prescriptions	2271	1554
Number of New Patients Seen in the Pharmacy	1049	737
Number of Casualty Cases	568	513
ARTI Prescriptions	29	36
ARTI Patients	26	33

Patient Assessment and Management

"Assessment is the cornerstone of excellent patient care"

First goal· determine the patient's condition
Baseline values for the patient's respiratory, circulatory and neurologic states must be established

Next, all life-threatening conditions must be found and urgent intervention and resuscitation must be initiated.

Finally, all conditions requiring attention before the patient can be moved must be identified and addressed.

All of there must be done **quickly and efficiently**.

SCENE

Protect the emergency responders and patients from further injury.
Any patient in a hazardous situation must be moved to a safe area before assessment and treatment care begin

PRIMARY SURVEY

A Airway and cervical spine control

Airway

If the airway is compromised, it will have to be opened using manual methods (trauma chin lift or trauma jaw thrust).

Cervical spine

When establishing an open airway there is always the possibility that a cervical spine injury may exist.

Excessive movement could also cause neurologic damage because bone compression may occur in the presence of a fracture spine.

Neck should be maintained in the neutral position during the opening of the airway and the administration of necessary ventilation.

Do not further harm.

B Breathing (ventilation)

Hypoxia is produced by inadequate oxygenation of the patient's tissues. After it has been ensured that the airway is open, the quality of the patient's ventilation must be evaluated

You have to estimate the **respiratory rate**

12 to 30	= normal	(+/- Oxygen)
<12	= too slow	Oxygen
>30	= too fast	Oxygen

C Circulation and bleeding

Circulation system failure is just as life-threatening as failure of the respiratory system.

Oxygenation of the red blood cells without delivery to the tissue cells is of no benefit.

You have to check the **pulse** (do not use your thumb).
Evaluating the pulse for presence, quality, regularity and by palpable peripheral pulse presence, an estimate of the blood pressure

60 to 100	= normal
<60	= bradycardia (except for athletic people)
>100	= tachycardia (anxious people)

Radial pulse will not be palpable if the blood pressure is below **80 mmHg**							
Femoral pulse	"	"	"	"	"	""	**70 mmHg**
Carotid pulse	"	"	"	"	"	"	**60 mmHg**

<u>In case of external hemorrhage</u>, application of **direct pressure** will control most or all major hemorrhage until the patient can be moved to a location where adequate equipment is available.

D Disability

This step is a direct measurement of cerebral function, and more important , an indirect measurement of cerebral oxygenation.

The object is to determine the patient's level of consciousness (L O.C)

A	Alert
V	Respond to Verbal stimulus
P	Respond to Painful stimulus
U	Unresponsive

A decreased of L.O.C. should alert you to four possibilities

- Decreased cerebral oxygenation (hypoxia, hypoperfusion)
- CNS injury
- Drug or alcohol overdose
- Metabolic derangement (diabetes, seizure, cardiac arrest)

N B :

A belligerent, combative or uncooperative patient should be considered to be hypoxic.

E Expose and protect from the environment

You must remove clothing if it is the only way the assessment can be properly completed.

You have to make a second assessment with regional examination.

Look
Listen
Feel

- **Immobilize fractured or injured limbs**
- **Dressing on the wound**

(Dr. Egmann 10/97)

Burn care

Introduction

Heat coagulates proteins (e g cooking an egg)

Priorities:
1) Stop the burning process
2) Use ABCDE method for assessment and management
3) Provide specific care for individual wounds

A large part of people die because they have inhaled toxic gases, carboneous by-products of combustion or have been in a hypoxic environment rather than from their burn injuries

Burn trauma often includes other non-thermal injuries

Anatomy and physiology

Three tissue layers

hair follicle	**epidermis**
oil gland	**dermas**
vessels	**subcutaneous tissue**
nerves	**muscles**

Functions:

Protective barrier against outside environment
(preventing infection / regulating body temperature)

Evaluation of potentially critical burns

❶ depth of the burn 1st degree (superficial)
2nd degree (partial-thickness)
3rd degree (full-thickness)

❷ Body Surface Area involved

Rule of the nine (chart of BSA) only 2nd and 3rd degree (1st degree = no loss of water)

Critical area face/airway
circular burns
extremities

❸ Age of the patient

age of the patient (years) + % BSA = % of mortality

❹ Pre-existing disease (past medical history, {e g diabetic mellitus is bad})

❺ Pulmonary injury

Smoke inhalation ⇨ wearing mask
toxic by-product inhalation

❻ Associated injury

❼ What kind of burn (current / chemical)

Burn management

Airway }
}
Breathing } Supplemental oxygen with high FiO2

Circulation Management of hypovolemia (in a burn patient with associated injuries, transport of oxygen may be diminished because of a decrease in circulary blood volume)

How? I.V. access

Which fluid? Ringer Lactate

How much? 4 ml x % 2nd, 3rd BSA x weight (kg) = fluid replacement
(half in the first 8 hours)

D Pain relief: Morphine
Ketamine
Cooling the wound with moist sterile pads

E Wound care. Wrap the victim in a clear or sterile dry sheet
Avoid ointments and solutions
Do not attempt to open blisters
Immunization against Tetanus +/- Antibiotics

Future

1st degree ⇒ one week to scare over

2nd degree ⇒ superficial = 10-14 days
deep = 25-35 days

3rd degree ⇒ needs grafters

(Dr Egmann / Dr Anand 10/97)

ASTHMA ATTACK

Asthma is an inflammatory condition of the airways which result in the airway becoming hyperreactive and narrowing easily in response to a wing range of stimuli. (Ash, dust, inhaled irritants, salicylate and NSAIDs).

Severe attack is suggested by

Respiratory symptoms

- Respiratory distress at rest
- Difficulty speaking and coughing
- Use of accessory respiratory muscles
- Respiratory rate > 30 /minute
- Auscultation silence
- Intensity of the wheezing is an unreliable indicator
- Peak flow < 150 l/minute (most people do not use it properly so it is not always a good indicator, on the contrary)

Circulatory symptoms

- Pulse rate > 130 / minute
- Pulsus paradoxus (>12 mmHg)

Neurological symptoms

- Anxious
- Restlessness
- Exhausting
- Confusion
- Coma

General symptoms

- Cyanosis
- Diaphoresis in profusion

Management

First level

Adult: Salbutamol 2 sprays
Children: Salbutamol syrup 0.2 mg / kg / day

Can be done twice

Second level

1) Oxygen nasal 3 to 4 l/minute

2) β adrenergic agonist

Nebulization	(twice the first hour and every 4 hours)
Adult	Salbutamol 5 mg (1 ml) + 4 ml (SSI or Atrovent)
Children	Salbutamol (0.01 to 0.03 ml/kg) + idem

3) Steroids Hydrocortisone 1 to 2 mg / kg
Dexamethasone

4) Hydratation 3 l/24hours (dextrose 5%)
5) KCl 8 to 10 g/24hours
6) Antibiotics (amoxicilline, macrolides)

Third level:

1) Endotracheal Intubation

10 to 12 / minute
6 to 8 ml / kg
I/E = 1/3 or ¼
Saturation of Oxygen = 92 %
Insufflation < 45 cm H2O

2) MgS 1 to 2 g / 20 minutes
3) Epinephrine

Any level

No Theophylline, No Alcalinization, No Hypnotics

Analgesia - Sedation

Adult

- **Sedation for Endotracheal of a patient shocked (collapsus)**

induction. Midazolam (0 05 mg/kg) + Etomidate (0 3 mg/kg)
following. Etomidate (0.5 to 2 mg/kg/h)

- **Sedation for Endotracheal of a patient with head injury**

suggestion #1.
induction Midazolam (0.05 mg/kg) + Etomidate (0.3 mg/kg)
following: Etomidate (0.5 to 2 mg/kg/h)

suggestion #2:
induction: Nesdonal (5 mg/kg)
following Nesdonal (1 to 2 mg/kg/h)

- **Sedation for Endotracheal of a patient with multi-system injury**

induction: Midazolam (0.05 mg/kg) + Etomidate (0.3 mg/kg)
following: Etomidate (0.5 to 2 mg/kg/h)

- **Sedation for Endotracheal of a respiratory distress or asthma**

suggestion #1:
induction: Midazolam (0.05 mg/kg) + Etomidate (0 3 mg/kg)
following: Etomidate (0 5 to 2 mg/kg/h)

suggestion #2:
Ketamine (1 to 2 mg/kg) + Midozalam (0.05 mg/kg)

- **Analgesia - sedation for an emergency gest (desincarceration, realignment of limp)**

1st level.	Nalbuphine (0 2 to 0.3 mg/kg)
2nd level:	Nalbuphine (0.2 to 0.3 mg/kg) + Midazolam (0.05 mg/kg)
3rd level:	Rapifen (5 to 10 mcg/kg) +/- Midazolam (0.05 mg/kg)

N.B.: Foreseeable Endotracheal Intubation after emergency gest:
Ketamine (0.25 to 050 mg/kg) + Midazolam (0.05 mg/kg)
therefore, induction: Ketamine (1 to 2 mg/kg) + Diazepam (5g to 10 mg)

- **Patient restlessness, non-ventilated**

Droleptan (0.5 mg/kg) I.M.

- **Analgesia -Sedation of a serious burn patient**

Ketamine (0.5 mg/kg) I.V. or I.M. + Midazolam (0.05 mg/kg) + Atropine

- **Seizures non relievable and needing Endotracheal**

induction:	Thiopental 5 mg/kg I.V.
following:	Thiopental 1 mg/kg/h

Paed

Sedation:

Premedication with		Atropine:	0.02 mg/kg
therefore		Midazolam	0.2 mg/kg I.V.L.
	or	Diazepam	0.5 mg/kg I.V.L.

Analgesia:

Nubain: 0.2 mg/kg