

PHYSICIAN'S ORDERS

ASTHMA

EMERGENCY MANAGEMENT (Paediatric)



Weight: \_\_\_\_\_ (kg)      Height: \_\_\_\_\_ (cm)

Allergies: \_\_\_\_\_

To complete the order form, fill in the required blanks and/or check the appropriate boxes.  
To delete orders, draw one line through the item and initial.

**PART A: INITIAL ASSESSMENT**

Salbutamol (5 mg/mL) give with 2 mL normal saline \_\_\_\_\_ mL inhaled x \_\_\_\_\_ dose(s) consecutively

**AND**

Ipratropium bromide (250 mcg/mL) 1 mL inhaled x \_\_\_\_\_ dose(s) consecutively

(NOTE: Includes inhalation given as per medical directive)

Prednisone \_\_\_\_\_ mg po x 1 dose, give after first inhalation

**OR**

Prednisolone liquid \_\_\_\_\_ mg po x 1 dose, give after first inhalation

**OR**

Dexamethasone \_\_\_\_\_ mg po x 1 dose, give after first inhalation

**OR**

Hydrocortisone \_\_\_\_\_ mg IV q \_\_\_\_\_ h

Peripheral IV line 2/3 - 1/3 at \_\_\_\_\_ mL/h

Oxygen Protocol

Peak Flow Measurement if > 6 years old

Pre inhalation treatment and 15 minutes post initial inhalation treatment series (1 to 3 treatments)

Investigations: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

MD SIGNATURE

**PART B: FOLLOWING REASSESSMENT**

Salbutamol give above dose q \_\_\_\_\_ min x \_\_\_\_\_ dose(s) then q \_\_\_\_\_ h and q \_\_\_\_\_ h prn

**AND**

Ipratropium bromide give above dose q \_\_\_\_\_ h and q \_\_\_\_\_ h prn

Other medications: \_\_\_\_\_

Peak Flow Measurement if > 6 years old 4 hours after each inhalation treatment or pre discharge

Investigations: \_\_\_\_\_

Consultation: \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

MD SIGNATURE

**PART C: PRIOR TO DISCHARGE**

Teach use of:     Puffers     Aerochamber     Peakflow meter

Refer to Asthma Education Centre

Date: \_\_\_\_\_ Time: \_\_\_\_\_

MD SIGNATURE

## Dosing Guidelines

Drug	Dose	Guideline
<b>Salbutamol **</b>	5 mg/mL solution: 0.03 mL/kg/dose inhalation q 20 mins - 4 hours minimum 0.2 mL/dose maximum 1 mL/dose	Give by inhalation starting at q20 min frequency until patient significantly improved. Reassess after every 3 masks; reduce frequency when patient is stable. Give dose in 3 mL NS by nebulizer with oxygen
<b>Ipratropium bromide</b>	250 mcg (1 mL)/dose inhalation q 20 min x 3 doses, further doses may be considered (q2-4h frequency)	Use for severe and moderately - severe disease, omit in mild disease. May mix with salbutamol or normal saline.
<b>Corticosteroids</b>	Prednisone or Prednisolone 2 mg/kg po x 1 dose maximum 60 mg <b>or</b> Dexamethasone 0.3 mg/kg po x 1 dose <b>or</b> Hydrocortisone 4 - 6 mg/kg/dose IV given q4-6h	Give as soon as possible except in mild cases (i.e. those with good initial response to salbutamol)  Give IV hydrocortisone in very severe asthma or deteriorating patient, or patients unable to take po medication (e.g., persistent vomiting)
<b>** Intravenous Salbutamol is not to be initiated in the ER. It is reserved for use only in the Critical Care Unit setting.</b>		

## Investigation Guidelines

### Chest Radiograph

Indicated if:

- Poor response to treatment
- Atypical cases, question of alternative diagnosis
- Need for hospitalization, fever, crepitations are not absolute indications for CXR

### Arterial Blood Gases

Indicated if:

- Fatigue or confusion present, poor response to treatment, deterioration despite aggressive treatment
  - $FiO_2 \geq 50\%$  is required to maintain a  $SaO_2 \geq 93\%$
- Consider if:
- Peak flow rates < 30% predicted

Consider obtaining serum potassium concentration if > 9 doses of bronchodilator given (at home and in Emergency Department)

## Peak Flow Chart

Paediatric Peak Flow Chart					
Ht. (cm)	Sex	Normal	85%	60%	50%
105-110	F	140-155	119-132	84-93	70-78
	M	159-173	135-147	95-104	80-87
111-115	F	158-170	134-145	95-102	79-85
	M	176-189	150-161	106-113	88-95
116-120	F	174-188	148-160	104-113	87-94
	M	192-205	163-174	115-123	96-103
121-125	F	191-207	162-176	115-124	96-104
	M	209-224	178-190	125-134	105-112
126-130	F	211-228	179-194	127-137	106-114
	M	228-244	194-207	137-146	114-122
131-135	F	232-251	197-213	139-151	116-126
	M	248-265	211-225	149-159	124-133
136-140	F	256-276	218-235	154-166	128-138
	M	270-289	230-246	162-173	135-145
141-145	F	281-304	239-259	169-182	141-152
	M	294-315	250-268	174-189	147-158
146-150	F	310-335	264-285	186-201	155-168
	M	320-343	272-292	192-206	160-172
151-155	F	341-369	290-314	205-221	171-185
	M	349-373	297-317	209-224	175-187

## Child & Adolescent Female: Age 12 to 20 yrs

Age	Height (in.)								
	42	46	50	54	57	60	64	66	72
12	190	220	250	280	302	324	354	384	414
14	209	239	269	298	321	343	373	403	432
16	228	258	288	317	340	362	392	421	451
18	247	277	308	336	358	381	411	440	470
20	266	295	325	355	377	400	429	459	489

## Child & Adolescent Male: Age 12 to 25 yrs

Age	Height (in.)								
	44	48	52	56	60	64	68	72	76
12	159	206	254	301	349	396	444	491	539
14	178	226	274	321	369	416	464	511	559
16	198	246	293	341	389	436	484	531	579
18	218	266	313	361	408	456	503	551	599
20	238	286	333	381	428	476	523	571	618
22	258	306	353	401	448	496	543	591	638
24	278	326	373	421	468	516	563	611	658
25	288	336	383	431	478	526	573	621	668

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