Obesity-hypoventilation syndrome (Pickwickian syndrome) in children (OHS)

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REPORTING INFORMATION
(To be completed by the CPSP Senior Coordinator)

Report number:	
Month of reporting:	
Province:	
Today's date:	

Please complete the following sections for the case identified above.
Strict confidentiality of information will be assured.

CASE DEFINITION FOR OBESITY-HYPOVENTILATION SYNDROME (PICKWICKIAN SYNDROME) IN CHILDREN

Report any new patient less than 18 years of age with the following clinical features:

- Weight: >95th percentile for age
- BMI: >95th percentile for age, or >30 kg/m^2
- Nocturnal: sleep apnea, i.e., snoring, restless sleep, mouth-breathing
- Excessive daytime drowsiness: falling asleep in class, or at other inappropriate times.

plus at least two of the following:

- Hypercapnia: serum bicarb >27 meq/L
- $PaCO_2$: >45 mm Hg (arterial or capillary gases, obtained in daytime)
- Oxygen saturation: <92%, in awake state, and room air

Exclusion criteria

- Primary lung diseases, e.g., cystic fibrosis, bronchiectasis. (Asthma is not an exclusion.)
- Hypothyroidism
- Cushing's syndrome
- Prader-Willi syndrome
- Primary cardiac diseases, congenital or acquired (e.g., viral myocarditis)
- Congenital craniofacial abnormalities (e.g., Alpert, Cohen, Carpenter, Crouzon syndromes)
- Pseudohypoparathyroidism (Albright hereditary osteodystrophy)
- Laurence-Moon-Biedl syndrome
- Central hypoventilation syndrome (Ondine's disease)

Month first seen _____

SECTION 1 – DEMOGRAPHIC INFORMATION

1.1 Date of birth: ____ /____ /_____ 1.2 Sex: Male ___ Female ___
DD MM YYYY

1.3 Province/Territory of residence: _____

1.4 Postal code of home address – first three digits only: __ __ __

1.5 Ethnicity

First Nations ___ Innu ___ Inuit ___ Métis ___ Chinese ___ Japanese ___

Other Oriental ___ East Indian ___ Black ___ Caucasian ___ Latin American ___

Middle Eastern ___ Other, specify: _____ Unknown ___

1.6 Highest level of education

Mother: Public school ___ High school ___ University/college ___ Unknown ___

Father: Public school ___ High school ___ University/college ___ Unknown ___

SECTION 2 – FAMILY MEDICAL HISTORY (parents and siblings)

		Yes	No	Unknown
2.1	Relative with obesity?	___	___	___
	If yes, specify relationship: father ___ mother ___ sibling ___			
2.2	Relative with nocturnal sleep apnea?	___	___	___
	If yes, specify relationship: father ___ mother ___ sibling ___			
	Specify use of: CPAP ___ BiPAP ___			

SECTION 3 – CLINICAL PRESENTATION

3.1 Age of symptom onset of sleep apnea: _____ years _____ months Unknown ___

3.2 Age at presentation: _____ years _____ months

3.3 At diagnosis:

		Yes	No	Unknown
3.3.1	Presenting symptoms/findings (check all that apply):			
	• Chronic fatigue	___	___	___
	• Excessive daytime drowsiness	___	___	___
	If Epworth Sleepiness Scale* used, give score: _____			
	• Nocturnal sleep apnea (snoring, restless sleep, mouth breathing)	___	___	___
	• Respiratory difficulties	___	___	___
	If yes, specify: _____			
	• Academic problems	___	___	___
	If yes, specify: _____			
	• Behaviour problems	___	___	___
	If yes, specify: _____			
	• Any current medications	___	___	___
	If yes, list: _____			

3.3.2 Physical examination findings

Weight: _____ kg Height: _____ cm BMI: _____

Resting B.P. – supine: ____ /____ or sitting: ____ /____, specify: _____ % for age

Acanthosis nigricans: Yes ____ No ____

* Modified Epworth Sleepiness Scale research tool (Melendres MC et al. Daytime sleepiness and hyperactivity in children with suspected sleep-disordered breathing. *Pediatrics* 2004;114:768-75. <www.pediatricsdigest.mobi/content/114/3/768.full.pdf>)

SECTION 4 – LABORATORY INVESTIGATIONS

		Yes	No	Unknown
4.1	Please check all that apply:			
	• Complete blood count	___	___	___
	If yes, specify: Hb _____ Hct _____			
	• Blood gases in daytime	___	___	___
	If yes, specify: capillary ___ venous____ pH ____ Pa CO_2 ____			
	• Blood gases at night-time	___	___	___
	If yes,specify: capillary ___ venous____ pH ____ Pa CO_2 ____			
	• Serum electrolytes	___	___	___
	If yes, specify: serum bicarbonate _____ meq/L			
	• Oxygen saturation in awake state and room air	___	___	___
	If yes, specify: FiO_2 _____ %			

SECTION 4 – LABORATORY INVESTIGATIONS (cont'd)

	Yes	No	Unknown
• Upper airway radiograph	___	___	___
If yes, specify: adenoid hypertrophy – mild ___ moderate ___ obstructing (kissing)___			
• Electrocardiogram	___	___	___
If yes, specify results: _____			
• Echocardiogram	___	___	___
If yes, specify results: _____			
• Overnight oxymetry	___	___	___
If yes, specify results: _____			
• Polysomnography	___	___	___

If yes, specify: apnea-hypopnea index _____ Central apnea index _____ O_2 saturation nadir _____
Time below 92% _____ CO_2 value _____ CO_2 time >50 _____ Arousals _____

SECTION 5 – OTHER RELEVANT MEDICAL HISTORY

5.1 Please specify concurrent medical conditions/concerns:

	Yes	No	Unknown
• Type 2 diabetes mellitus (or positive Glucose Tolerance Test)	___	___	___
• Dyslipidemia	___	___	___
If yes, specify results: _____			
• Polycystic ovarian syndrome	___	___	___
• Non-alcoholic fatty liver disease	___	___	___

If yes, specify: ALT >90 ____ steatorrhea on US ____

SECTION 6 – MANAGEMENT

6.1 Please check all that apply:

Dietary counseling ___ Physical activity program ___ Physiotherapy ___ Psychology ___
Obesity treatment ___ Oxygen administration ___
Ventilation support: CPAP ___ BiPAP ___ Tracheostomy ___ Invasive night-time ventilation ___
Medications ___, specify: _____
Adenoidectomy ____ Tonsillectomy ___
Treatment: Outpatient ___ Hospital stay ___

SECTION 7 – OUTCOME

7.1 Indicate age at last follow-up: _____ years _____ months

7.2 Outcome at last follow-up

7.2.1 Hospital stay: Total number of days ____ Still in hospital? (give dates) _____
7.2.2 Home ____
7.2.3 Patient condition: Weight _____ kg Height _____ cm BMI _____
7.2.4 Deceased ____
7.2.5 Unknown ____
7.2.6 Other, specify: _____

___ **I agree to be contacted by the research team for further information.**

___ **I do not wish to be contacted by the research team for further information.**

SECTION 8 – REPORTING PHYSICIAN

First name_____ Surname_____

Address_____

City_____ Province_____ Postal code_____

Telephone number_____ Fax number_____

E-mail_____ Date completed_____

Thank you for completing this form.

(OHS 2012-04)