

Respiratory disease patient assessment



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Total Patient Care

Patient Profile

Name of patient: Miss Cheung

Sex/ Age: F/ 17

Hospital/ Ward. Bed no.: Alice Ho Miu Ling Nethersole Hospital (AHNH) /

E4 (Paediatrics unit) / 25

Demographic Data (Client's personal particulars) & Psychological assessment:

Miss Cheung, 17 years old, was born in Hong Kong in 1996. She speaks in Cantonese. She is a student and studies in secondary six. She is single and lives with parents at Tai Po. She has no religion. She is a non-smoker and non-drinker.

Miss Cheung is shy when people talk to her. She expressed that she does not good at communicating with people. She hoped that she can return to school as soon as possible.

Admission Details:

Past health history:

Miss Cheung did not get respiratory disease before and with good past health history and no family disease history. She has no known drug allergy and food allergy.

Reasons for admission/ chief complaint:

Miss Cheung was admitted to AHNH E4 ward from the Accident and Emergency Department (AED) on 1st December, 2013 at 11am with her mother for chief complaint of fever for 5 days which was up to 39.1 °C, cough with yellowish sputum with small amount, mild runny nose and sore throat. She got fever which was 39.5 °C with mild chills at the time of admission. She had seen private sector for few days ago, but the condition had not been relieved and even worst with increased coughing and sputum production, persistent fever, runny nose and sore throat.

Medical diagnosis and investigations:

In the physical assessment, her neck was soft and no enlarged lymph nodes. Throat had mild congested without ulcer or exudates. Heart sound was normal with no murmur. Abdomen was soft, non tender, no mass and organomegaly, and bowel sound was normal. Skin was intact and no rash. Chest X ray was done which showed that left lower zone had mild haziness but bilateral costo-phrenic angle were sharp. She was diagnosed as left sided pneumonia.

Client's progress (since admission, any examination, medical management, nursing care and client's response):

On 1st December, 2013 (admission day), her blood pressure was 114/60 mmHg, and SpO₂ was 97% in room air which were normal; pulse rate was 128 beats per minute indicated tachycardia and respiratory rate was 22 breaths per minute indicated tachynea. Miss Cheung was diagnosed as left

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sided pneumonia. She complained of cough with increased sputum production, runny nose and sore throat and Actifed was administered as prescribed. She got fever (39.5°C) with mild chills, hence, Panadol and Augmentin were administered as prescribed. She can continue diet as tolerated but she decreased diet and fluid intake due to loss of appetite and nausea. She got once vomiting with undigested food and yellowish fluid. Nasopharyngeal Aspirates were performed for viruses detected. Sputum was collected for culture and blood sample was collected for complete blood count, renal and liver function test, C-reactive protein and AP titre.

On the 2nd December, 2013, Miss Cheung complained of cough with increased sputum production but difficulty in coughing out, runny nose, mild headache, nausea and vomiting without abdominal pain and Actifed was administered as prescribed. She got fever (38.8°C) and Panadol and Augmentin were administered as prescribed. Miss Cheung complained of having loose stool in the morning which suspected the side effect of taken Augmentin. Miss Cheung had decreased diet and fluid intake due to loss of appetite and nausea. She got once vomiting with undigested food and yellowish fluid in the morning

Investigation(s) done: e. g. CXR, OGD

Physical assessment date:

Date/ time	temperature	Blood pressure/ mmHg	Pulse/ beats per	Respiration rate/breaths per minute	SpO ₂ /%
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minute

2/12/2

013	38.8 °C	110/70m mHg	95	22	97%
07:00					

10:00	38.3 °C	115/78m mHg	90	21	97%
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Laboratory findings:

Virology

1/12/2013

Items	Date collected	Reference range	Interpretation (Normal or abnormal, if abnormal, pls explain)
Adenovirus	Negative		Normal
Influenza virus type A	Negative		Normal
Influenza virus type B	Negative		Normal
Para influenza	Negative		Normal

virus type 1

Para

influenza Negative Normal

virus type 2

Para

influenza Negative Normal

virus type 3

Respiratory

syncytial Negative Normal

virus

Chemical

Pathology report

on 1/12/2013:

Items	Date	Reference	Interpretation
	collected	range	(Normal or abnormal, if abnormal, pls explain)
Serum CRP	28.2 *	<9.9 mg/L	Higher, infection or inflammation
Iron	9.2	5.8-34.5 umol/L	Normal

TIBC	63.8	41.0-77.0 umol/L	Normal
% Saturation	14.4	10.0-50.0 %	Normal
Ferritin (ug/L)	T/F	15-150\$ ug/L	Normal
Ferritin	T/F	29-333\$ mol/L	Normal

Renal and liver
function test
(R/LFT) on
1/12/2013:

Items	Date collected	Referenc e range	Interpretation (Normal or Abnormal, if abnormal, pls explain)
Na ⁺	140	137-144 mmol/L	Normal
K ⁺	4.0	3.5-5.0 mmol/L	Normal
Urea	2.6	2.6-6.6	Normal

		mmol/L	
creatinine	58	49-83 umol/L	Normal
Total protein	76	65-82 g/L	Normal
Albumin	42	35-52 g/L	Normal
Globulin	34		Normal
Total bilirubin	4	<17 umol/L	Normal
Alkaline phosphate	115	45-173 lu/L	Normal
ALT	43	<55 lu/L	Normal

Complete

blood count on

1/12/2013:

Items	Date collected	Reference range	Interpretation (Normal or Abnormal, if abnormal, pls explain)
WBC	11.9*	3.6-9.9 X 10 ⁹ /L	Higher, indicator of infection and

inflammatory disease

RBC	5.0	3.60-5.00 X 10 ⁹ /L	Normal
HGB	12.3	11.1-15.1 g/d	Normal
HCT	0.34	0.33-0.44 L/L	Normal
MCV	87.1	82.0 – 96. 0 fL	Normal
MCH	29.4	28.0 – 33. 0 pg	Normal
RDW	12.6	11.6-14. 2%	Normal
NRBC	0.0	X10 ⁹ /L	Normal
NR/W	0.0	%	Normal
PLT	224	150-400 X 10 ⁹ /L	Normal
MPV	8.7	7.0-10.0	Normal

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WBC

differential

Neu	4.90	2.0-6.0 X 10 ⁹ /L	Normal
Lymp	1.3	1.0-2.7 X 10 ⁹ /L	Normal
Mono	0.60	<1.0 X 10 ⁹ /L	Normal
Eosin	0.00	<0.7 X 10 ⁹ /L	Normal
Baso	0.00	<0.1 X 10 ⁹ /L	Normal
% Neu	71.7	47.0-77.0 X 10 ⁹ /L	Normal
% Lymp	19.6	17.0-43.0 X 10 ⁹ /L	Normal
% Mono	8.4	4.0-10.0	Normal

			$\times 10^9 /L$	
% Eosin	0.1		$<5.0 \times 10^9 /L$	Normal
% Baso	0.2		$<1.0 \times 10^9 /L$	Normal

Medication:

Regular medication including oral and intravenous injection:

Drug	Dosage	Frequency	Route	Action	Major side effects	Indications
Acticfed	7.5ml	TDS	PO	Reduce the production of mucus in the nose by contracting and decreasing blood flow through blood	Dry mouth, nose, or nose	Relieve symptoms like runny nose

vessels
 lining of
 the nose
 and ess;
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<p>Augment 1gra BD</p> <p>in m</p>	<p>PO</p>	<p>Act against Loose Used for</p> <p>gram stool; treating</p> <p>positive diarr various</p> <p>and gram hea; types of</p> <p>negative naus infection</p> <p>organism ea, s like</p> <p>which skin pneumon</p> <p>interfere rash ia</p> <p>with</p> <p>bacterial</p> <p>cell wall</p> <p>peptidogly</p>
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can

synthesis

Medications (when necessary):

Drug	Dosage	Frequency	Route	Action	Major side effects	Indication
Panadol	500mg	Q4H	PO	Reduce the synthesis of prostaglandins which are the mediation of pain and fever	Nausea; stomach upset; skin rash	Relieve symptoms like mild to moderate pain and fever

Comprehensive assessment using Gordon Functional Health Pattern:

(Data collection date: 2nd December, 2013)

1. Health perception and management

Miss Cheung is a non-drinker and non-smoker. She has no known drug allergy. She had regular body check from the government health program. When she felt sick, she usually visited doctor immediately as she did not want to affect her study. She can indicate the rule of healthy life including regular exercise and balanced diet but she had not obeyed and taken action

because of heavy schoolwork. Although she knew she was overweight, she cannot control herself on eating snacks.

2. Nutrition and metabolism

Miss Cheung has no known food allergy. She liked eating meat and fried food in which she ate fried food twice a week. She disliked vegetables and fruits, hence, she ate rare vegetables each day and fruits once a week. She usually ate 3 meals each day in which she usually ate noodles with egg and hams at the breakfast; fast food at lunch and rice with meats in dinner. She drank 6 cups of fluid everyday including water, soft drinks and soup. She ate snacks including chocolate and potato chip at most recess time. She decreased diet and fluid intake 5 days ago due to loss of appetite and nausea.

3. Elimination

She reported that she usually got 6 times urination everyday in which the urine color was yellowish with no pain and burning sensation. She usually had bowel elimination three times a week with brown and formed stools. But she complained that she got a loose stool on 2nd December, 2013 morning. She got once vomiting on 1st December, 2013 and once vomiting on 2nd December, 2013 morning with yellowish fluid and undigested food.

4. Activity and exercise

Miss Cheung does not have regular exercise but usually goes shopping with her friends about 5 to 6 hour at weekends. She prefers watching movies and playing computer games in the leisure time. She complained that she became weak and easily felt tired started five days ago. When she walked for a while, she felt shortness of breath. As she got the PE lessons on the 29

th November, 2013, she coughed even worst and had breathing difficult and felt better after taking rest.

5. Cognition and perception

Miss Cheung is fully alert, and conscious, oriented to time, place and person. Her speech is clear; vision and hearing is normal and her response is communicable. She complained of headache and sore throat.

6. Sleep and rest

Miss Cheung expressed that she usually has 7 hours sleeping hours from 12am to 7am at night and usually sleeps well but sometimes get nightmares. She complained that she had decreased sleeping quality five days ago as cough became worst at night and sore throat which disturbed her sleeping. She reported that she cannot sleep well during hospitalization because of the strange environment and coughing.

7. Sexuality and reproduction

Miss Cheung is single and never has sexual activity. She does not have regular self breast examination and genital examination.

8. Roles and relationship

Miss Cheung lives with her parents and has good relationship with her parents and always gets support from her parents. She feels satisfactory on her social life and has good relationship with her friends. She expressed that she missed school life and her friends and hoped that returned to school as soon as possible.

9. Self perception and self concept

Miss Cheung expressed that she quite cared on how people think about her. She believed that if she studies well, parents and friends will like her and proud of her so that she concerns on her study. She expressed that she is shy to communicate with stranger but she quite concerned on having a wide social life.

10. Stress and coping

Miss Cheung expressed that her major concern and pressure was her studying. She worried that she stayed at the hospital in which she cannot attend to school and afraid of keeping up the progress. When she feels stress, she prefers eating and listening music to release pressure.

11. Values and beliefs

Miss Cheung does not have religious. She believed that she can handle things on her own. She expressed that her family and friends were important for her who always gave her supports.

All possible nursing diagnosis with priority:

1. Ineffective airway clearance is related to viscous secretions secondary to pneumonia as evidence by inability to remove airway secretion.
2. Impaired gas exchange is related to excessive secretion secondary to infection as evidence by verbally complained of shortness of breath.
3. Imbalanced nutrition: less than body requirements is related to increased caloric requirements and difficulty in ingesting sufficient calories secondary to infection as evidence by verbally reported weight loss and decreased diet intake.

4. Deficient fluid volume is related to vomiting and decreased motivation to drink liquids as evidence by dry lip and tongue and insufficient oral fluid intake.
5. Activity intolerance is related to inadequate motivation secondary to generalized weakness as evidence by verbally reported of weakness and lost of power.

Reasons for priority:

After the assessment, the nursing diagnosis made for Miss Cheung were ineffective airway clearance, impaired gas change, imbalanced nutrition: less than body requirement, deficient fluid volume and activity intolerance.

The first priority is ineffective airway clearance as the accumulation of thick secretions affects the effective ventilation and may cause cyanosis and dyspnea. It is important for her to be effective airway clearance to reduce the risk of dyspnea.

The second priority is deficient fluid volume which may cause dehydration and electrolyte imbalance. These may affect organ function like heart failure in serious. It is important for her to replace fluid volume and prevent harmful effect.

The third priority is imbalanced nutrition: less than body requirement. As Miss Cheung had decreased diet intake from the sickness and nutritional requirements would be increased to enhance the immune system, lack of nutrition should be considered. After that, diet modification of balanced diet should be educated to Miss Cheung due to BMI higher than normal range.

The fourth priority is impaired gas change which affects the oxygen delivery to the cells. Once the ineffective airway clearance is managed, the problem can be resolved.

The last priority is activity intolerance because it is caused by ineffective airway clearance, impaired gas change and discomfort. Once these problems are managed, her activity level has been returned normal.

Focus assessment for the altered functional health patterns:

Activity and exercise (Data collection on 2/12/2013 at 11am)

Subjective Data:

Miss Cheung reported that she got cough and fever from 27th November, 2013 in which cough had become worst with increased sputum production. However, she cannot cough out sputum effectively. Once she can cough out, the sputum was yellowish and sticky with small amount. She felt fatigue and malaise especially having exercises. She reported that she felt shortness of breath and increased sputum production when she walked for a while. She got PE lesson on the 29th November, 2013, then, she coughed worst and got breathing difficult. After taking a rest, breathing difficult had been relieved but still cough with increased sputum production and difficult to cough out. She reported that she needed more efforts to take a breath after walking up stairs or doing exercise in these few days.

She also expressed that she usually went shopping with friends after school, but she lost of interested after getting sick as she felt tired and wanted to have a rest all the time.

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She was asked to walk around the ward for about five minutes. She reported that she needed to go to bed as she felt tired and mild breathing difficulty in which she needed more effort to breath and she cannot tolerate more.

Objective Date:

She can breathe spontaneously through nasal. The serum C-reactive protein (28.2 mg/L) and white blood cell (11.9×10^9 /L) were higher than normal indicated infection and inflammation condition. Chest X-ray indicated that left lower zone had mild haziness. She was diagnosed as left sided pneumonia. Her respiratory rate was 22 breaths per minute on the admission day which was tachypnea. Her respiratory rate on 2nd December, 2013 at 10am was 21 breaths per minute indicated tachypnea with regular rhythm. Her chest wall moved in symmetrical and did not use of accessory muscle.

She was asked to walk around the ward for about five minutes. When she changed position from lying to stand, she had coughed more but she cannot cough out sputum effectively. Her SpO₂ was kept monitoring during walking which was 96 to 98%. She had not appeared cyanosis but had rapid and shallow breathing during walking. Before walking, her pulse rate was 105 beats per minute; blood pressure was 114/66 mmHg; respiratory rate was 21 breaths per minute and SpO₂ was 98%. After having a walk, her pulse rate was 120 beats per minute; blood pressure was 110/67 mmHg; respiratory rate was 24 breaths per minute and SpO₂ was 95%. After auscultation of her lung sound, crackling and bubbling sounds had been noted.

Nutrition and metabolism (Data collection on 2/12/2013 at 1130 am)

Subjective Data:

Miss Cheung expressed that she had lost of appetite and decreased diet and fluid intake from 27th November, 2013 because of getting sick and nausea. She expressed that she got fever, headache, sore throat and cough which were the major reasons of discomfort. She expressed that she had not contacted to people who were getting sick and had not got any vaccination. She expressed that she felt she lost weight since she got sick.

She had taken 1/3 diet on every meal time and total 600ml fluid on 1st December, 2013. She got totally four times urination on 1st December, 2013. She got once urination from 2nd December, 2013 in the morning and reported that it was yellowish with small amount and odor. She reported that she got nausea especially after excessive coughing. She got once vomiting on 1st December, 2013 and once vomiting on 2nd December, 2013 morning with yellowish fluid and undigested food.

Objective Data:

Miss Cheung's body weight was 75. 1 kilogram and height was 164. 5 centimeter in which her BMI was 27. 8 which was overweight. Physical assessment had been done on the 2nd December, 2013 morning. Her body temperature was 38. 3 ° C which was hyperthermia; blood pressure was 115/78 mmHg' SpO₂ was 97% in room air and her pulse rate was 105 beats per minutes which were normal. Her respiratory rate was 21 breaths per minute which was tachypnea. Her skin turgor and capillary refill time were within 3 seconds indicated normal but with dry mucous membrane. She had

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dry lip and tongue. Her Glasgow Coma Scale was 15/15 which was fully consciousness.

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