

University of Shendi
Faculty of Post Graduate studies

Assessment of Nurse Knowledge Regarding Pneumonia

*Dissertation Submitted in Requirement for Master Degree in
Pediatric Nursing*

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بسم الله الرحمن الرحيم

قال تعالى: " المال والبنون زينة الحياة الدنيا
والباقيات الصالحات خير عند ربك ثواباً
وخير أملاً "

صدق الله العظيم

سورة الكهف الآية (45)

الإهداء

على صفحات ماء النيل أخط حروف إهدائي
أسطرها مدى الأيام تزين الدهر إنشائي
لمن ضحو بعمرهم سبيل سعادتني تعبو لإرضائي
إلى أمي وإخواني إلى أهلي وأبائي
إلى من علموني العلم مفخرة بجهدهم أساتذتي الأجلاء
إلى رفقاء درب النور معرفة زميلاتي وزملائي
إلى وطني إلى بلدي إلى محراب إيوائي
لعل الجهد ينفعهم يفيد الداني والنائي
ونسأله موفقنا بأن يجزله إعطائي
وأهدي هذا الجهد لروح أبي الطاهرة
إليكم أهدي هذا الجهد المتواضع وأرجو أن ينفع الأمة

الباحثة

الشكر والعرفان

الشكر أولاً لله رب العالمين
الذي سبب الأسباب وسهل السبل إلى أن بلغنا مبتغانا
فله الحمد والشكر على ذلك
والشكر من بعد
للدكتور أو شيك أحمد شريف
الذي ما قصر في توجيهي نحو الصواب
وما بخل بجهده وعلمه ووقته تجاه أن يخرج هذا البحث ويرى النور
وأشكر كل الأهل والأصدقاء وكل من ساندنا
خلال هذه السنوات المليئة بالجهد والصبر
والشكر أيضاً لأساتذتنا الأجلاء
داخل وخارج الكلية وشكر خاص للدكتورة نبيلة حسن عبد اللا
والشكر لكل من وقف خلف هذا الجهد

الباحثة

ملخص البحث

أجريت هذه الدراسة المقطعية على 50 ممرضة داخل مستشفى المك نمر الجامعي وذلك لتقييم معرفة الممرضة عن الإلتهاب الرئوي لدى الأطفال.

في الفترة من ديسمبر 2009 – مارس 2010 باستخدام إستبيان يحتوي على أسئلة مغلقة وأخرى مفتوحة.

وكانت أهداف هذه الدراسة تقييم معرفة الممرضات تجاه الإلتهاب الرئوي وتقييم التطبيق المبكر للإلتهاب الرئوي ومعرفة أنواعه والمضاعفات الناتجة منه.

وقد أظهرت النتائج أن أعلى نسبة 46% لمعرفة أسباب الألتهاب الرئوي وأدنى نسبة هي 8%.

لمعرفة أنواع إلتهاب الجهاز التنفسي العلوي أعلى نسبة 45% وأدنى نسبة 4% ومعرفة المضاعفات أعلى نسبة 54% وأدنى ونسبة 16% وأعلى نسبة لعلاج الإلتهاب الرئوي 70% وأدنى نسبة 8%.

وأعلى نسبة لمعرفة نوع الحمى في أعراض الإلتهاب هي 100%

وقد لوحظ وجود فروقات ذات دلالة إحصائية بين أفراد العينة بالنسبة المستوى التعليمي للممرضات ونسبة معرفتهن بأمراض الجهاز التنفسي وكيفية تقديم العناية للأطفال.

وقد صيغت التوصيات تبعاً لهذه النتائج بضرورة زيادة الوعي الصحي للممرضات عن طريق الكورسات والممارسات العملية والطبية لإلتهاب الجهاز التنفسي.

Abstract

Knowledge of nurses about pneumonia is very important for preventing and avoiding complication.

A descriptive based cross-sectional study was conducted to assess knowledge of nurses regarding pneumonia in Elmak Nimer university hospital as 50 nurses were including in this study. In the period extending from December 2009 to March 2010 using questionnaire containing open and dosed ended question this study revealed that there is most of nurses age between 20-30 years and knowledge of nurses about pneumonia ware depended on level of education Bacloria 76% , Diploma 24% and years of experience less than two years 54% , more than two years 20%.

More than 30% of nurses did not known how to assess signs and symptom and how to prevent pneumonia .

The study recommended that pneumonia causes for nurses should be comprehensive, advanced and with up to date technology to safegured then child and protect the life of children and to promote health of individual and community

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Introduction

Pneumonia:

It is an acute infection and inflammation of the lung parenchyma caused by various organisms like pneumococci, staphylococci, entamoeba histolytica, virus etc.

Pneumonias may be classified according to the sites as lobar pneumonia and bronchopneumonia.

Pneumonia may occur at any age but infants and elderly are more vulnerable. It affects both genders equally. It is more common in winter and rainy season.

Poor environmental condition, overcrowding and poor sanitation may precipitate pneumonia.

The microorganisms that give rise to pneumonia are always present in upper respiratory tract. They cause no harm in a healthy person. When the resistance is lowered the organisms attack lungs.

Acute and chronic respiratory diseases such as influenza, chronic bronchitis, bronchiectasis, etc. may lead to pneumonia. Diseases like leukemia, myeloma, lymphoma, esophageal carcinoma, etc. may lead to secondary pneumonia.

Inhalation of anesthetic agents during surgery, treatment with drugs like steroids and immunosuppressive agents, radiation, etc may cause pneumonia as complication.

In lobar pneumonia a segment or a few segments of a lobe or an entire lobe may be affected. It may spread to other lobes of the same lung or to opposite lung. When it affects both lungs it is called bilateral pneumonia. Specifically the most common site is lower lobe of right lung.

There is swelling and congestion of lung parenchyma. Microscopically alveolar walls are swollen and congested. There is also inflammation of overlying pleura (pleurisy).

In bronchopneumonia the inflammation of the lung parenchyma is localized around the bronchi and the lung is spotted with clusters of infected tissue. It less fatal than lobar pneumonia. But relapses are common.

Pneumonia is manifested by high temperature of 103 – 105f (38.9 – 40.5c) which is continuous in nature and is associated with chills and rigor. Fever is accompanied by headache and body ache. There is chest pain due to associated pleurisy. Dyspnoea is present. There is cough with tenacious

sputum which gradually turns rusty. Patient complains of malaise and weakness.

Patient also suffers from rapid pulse rate, flushed face, skin is hot and moist. Pallor and central cyanosis may be present. There may be hypotension.

On examination following are the findings restricted expansion of the affected part of the chest, percussion presents impaired resonance breath sound is found to be diminished and crepitations are heard on auscultation.

Investigations include blood cell count which shows leucocytosis e.g. 15000 – 20000 per cubic mm with 85-90% polymorphs. Sputum tests show presence of the causative organism. Chest x-ray shows opacity over the affected region which may be due to solidification of lung parenchyma.

The treatment includes bed rest in propped up position humidified oxygen inhalation with nasal catheter or masks antibiotic therapy may also be necessary to combat infection. Penicillin 1 mega unit IM 6 hourly for 7 to 10 days (if patient is allergic to penicillin then tetracycline or erythromycin may be given).

Expectorants are given to help cough out sputum. In severe cough codeine phosphate is given to relieve cough.

Intravenous saline drip is usually started. As patient's condition improves plenty of oral fluid is given. Diet should be liquid bland and easily digestible to be given in small amount at frequent intervals.

Complications may be septicemia, lung abscess, pleural effusion, empyema, respiratory failure, congestive cardiac failure, acute endocarditis, obstructive jaundice, paralytic illness, peritonitis meningitis, oliguria, pneumococcal conjunctivitis, acute suppurative otitis media, osteomyelitis and suppurative arthritis.

Justification

All respiratory problems in children is main causes or morbidity and also contribute in ever death.

Pneumonia common disease in pediatrics manly in infant and early child hood. It increase in winter because that may research aims assessment knowledge of nurses in hospital to give proper immediate care and to prevent complication.

Research objectives

General Objective:

Assessment of nurse's knowledge regarding pneumonia

Specific objectives:

1. To assessment nurses evaluation of early management of pneumonia
2. To assessment nurses knowledge about types of pneumonia.
3. To assessment nurses knowledge about respiratory infection.
4. Identify complication of pneumonia.

Literature Review

Pneumonia:

Bacteria pneumonia may be caused by several organism.

Clinically they may be difficult to distinguish.

Pneumococcal pneumonia caused by hemophilus influenza are presented briefly in table “1”

The highest incidence of pneumococcal pneumonia is during late winter and early spring. In childhood, it occurs most frequently in the first 4 years of life. In infants, bronchopneumonia is more common, whereas in older children and adults one or more lobes are involved in the disease process without affection the remainder of the bronchopneumonia there is consolidation of scattered lobules and the mucosa is inflamed.

The infant usually has amid upper respiratory tract infection of several days duration consisting of a stuffy nose, fretfulness and decrease in appetite. This initial phase is followed by an abrupt onset of fever from 39.4°C to 40.6°C ($103 + 0105^{\circ}\text{F}$) restlessness in apprehension and respiratory distress, the infant may have a generalized convulsion due to high fever, observation of the infant may reveal flushed checks, circumoral cyanosis, nezal flaring suprasternal. Intercostals and sub costal

retraction tachypnea and tachycardia a cough appears as the course progresses abdominal distention may be due to swallowed air or paralytic ileus, meningism may be present. The white blood cell count ranges from 15.000 to 40.000/mm³ polymorphonuclear leukocytes predominate on x-ray a patchy infiltration of one or several lobes is found, indicating bronchopneumonia, the causative organism is recovered in secretions from the trachea from pleural fluid obtained by thoracentesis, or from blood, the most common complication is empyema the prognosis is favorable.

Penicillin G is the most effective antimicrobial agent in the treatment of pneumococcal pneumonia. If the infant is allergic to penicillin, erythromycin or cephalothin is an effective agent, the remainder of the treatment is symptomatic and supportive, bed rest, an abundance of oral fluid and antipyretic for fever, oxygen and mist are administered to alleviate respiratory distress and anxiety. If empyema occurs thoracentesis is done. Intravenous fluids are given to combat dehydration and electrolyte imbalance.

Classification:

A) According to causes:

- 1- Bacterial pneumonia
- 2- Viral pneumonia

Bacterial:

(1) 1/ Staphylococcus

2/ Age: under 1 year

3/ Signs and symptoms:

Recurrent hospitalization or maternal breast abscess, respiratory infection upper or lower, for several days to 1 week followed by abrupt change fever, cough, respiratory distress, tachypnea, grunting, respiration, sternal and subcostal retraction, cyanosis, anxiety, lethargic if undisturbed, irritable, if roused, pyopneumothorax, pneumatoceles and empyema as clinical course progresses.

(2) Laboratory reports:

WBC: Normal range in young infant, 20.000/mm³ with predominant polymorphonuclear leukocytes in older infant tracheal aspiration and 1 or pleural tap culture positive x-ray patchy infiltration or dense (bronchopneumonia or/D bar)

(3) Treatment:

- ◊ Symptomatic and supportive
- ◊ Oxygen
- ◊ Semi – fowler’s position
- ◊ Parenteral fluids during acute phase
- ◊ Methicillin or penicillin G for 3 weeks or 1m
- ◊ Thoracentesis
- ◊ Closed chest drainage with extensive involvement for 5-7 days
- ◊ Hospitalized

(2) Streptococcus group A

1- Age 3-5 years

2- Sign and symptom:

Mild prodromal symptoms followed by sudden onset of high fever, chills, respiratory distress clinical course similar to staphylococcal, complication: empyema and bacterial foci in bones and joints

(3) Laboratory reports:

- ◊ WBC: elevated with polymorphonuclear leukocytes predominating
- ◊ So titer elevated

- ◊ Positive culture
- ◊ X-ray disseminated infiltration

(4) Treatment:

- ◊ Symptomatic and supportive
- ◊ Penicillin G
- ◊ Thoracentesis
- ◊ Closed drainage

(3) Hemophilus influenzae

Age: Infants and young children

Sign and symptoms:

Mild or severe insidious onset clinical course sub acute and prolonged of several week duration, signs and symptoms similar to pneumococcal signs and symptoms in young infants associated with bacteremia and emphysema, complication: bacteremia, pericarditis, cellulitis empyema, meningitis pyarthrosis.

(2) Laboratory reports:

- ◊ Bacteremia
- ◊ Positive culture
- ◊ Moderate leukocytosis with lymphopenia
- ◊ X-ray: lobar consolidation

(1) Treatment:

- ◊ Symptomatic and supportive
- ◊ Ampicillin

B) Other types:**1- Chemical Pneumonia:**

The severity of intensity of the manifestations of chemical pneumonia depends on three factors which should be considered in every case of aspiration or ingestion. The material ingested, the amount involved most chemical pneumonia seen in clinical pediatrics fall into one of two categories hydrocarbon and lipid pneumonias, some authorities believe that aspiration of lipids and hydrocarbons during swallowing, vomiting or gastric large is the cause of lung involvement.

2- Hydrocarbon Pneumonia:

Kerosens, gasoline and turpentine are potentially harmful substances which are often accidentally ingested by children, particularly curious toddler other substances include furniture polish certain insect sprays (where the propellant is usually kerosene) and lighter and cleaning fluids. If the amount swallowed is in excess of 10cc, the toxicity increases greatly, within an hour

after ingestion nausea. Vomiting and coughing may occur with evidence of central nervous system involvement.

Such as draws ness , evident as a result of the inhaled vapors. Gastro enteritis will be present in those youngsters who have ingested kerosene, but it does not occur in those children who have swallowed gasoline, these patient are frequently febrile with temperatures from 38 to 40c^o (100 – 104f^o) methemoglobin formation may also be demonstrated about 40 percent of these children develop pulmonary complications synosis and dyspnea may also be manifested. On physical examination there may be suppressed breath sounds, rales, and diminished resonance on percussion, however, roentiraphic studies most frequently depict the extent of pulmonic involvement.

Although complications such as pnemo thorax subcutaneous emphysema of the chest wall and pleural effusion including emypema may occur in most instaces recovery is in 3 to 7 days, the different in subsequent recovery depend upon the patient and in the case of a kerosene ingestion, the constinution of the kerosene for it varies according to the tempruller at which the cracking process was carried out.

3- Lipid Pneumonia:

Lipid pneumonia caused by the aspiration or accumulation of oil in the alveoli is a chronic debilitated infants with improper swallowing or depressed cough reflexes. In children who are force- fed or maintained in a horizontal position. The aspiration of milk is a common cause of lipid bronchopneumonia in the first year of life.

Administration substances with oily based such as mg result in lipid pneumonia.

As a rule, vegetable oils such as olive oil, cottonseed oil, and sesame oil are the least toxic and the least irritating lipids they are not hydrolyzed by lung lipases. Cause little damage and are removed, mainly by expectoration. Further more, animal oils – such as cod-liver are very dangerous because they have a very high fatty acid content, and when hydrolyzed by lung lipases the liberated fatty acids combine with those present in the originally aspirated substance and produce sever inflammatory responses, after aspiration an initial interstitial, proliferative in inflammatory response occurs the second phase involve the

development of diffuse, proliferative fibrosis, which is followed by the formation of multiple localized nodules.

A cough is present and dyspnea may be evident in severe cases however there may be no other manifestation unless there is a superimposed infection. As expected secondary bronchopneumonic infections are common. Roentgenographic chest films reveal patchy to nodular infiltration or densities, especially in the right lung.

The prognosis is dependent upon the extent of involvement whether, administered oil preparations are continued and overall physical status of the young child. Treatment is symptomatic and the prevention of secondary infection is essential. Surgical resection may be considered later, should pulmonary involvement be localized to one segment or lobe.

B) Forms of infectious pneumonia:

1. Lobar pneumonia :

All or a large segment of one or more pulmonary lobes is involved

2. Broncho pneumonia:

Begins in the terminal bronchioles, become clogged with mucopurulent exudates to form consolidated patches in lobules.

3. Interstitial pneumonia:

The inflammatory process is more or less confined within the alveolar wall & the per bronchial and interlobular tissues.

C) According to Severity of symptoms:

1. Mild pneumonia

- ◇ Fever
- ◇ Cough
- ◇ Malaise
- ◇ Chills
- ◇ Rapid & shallow respiration

2. Severe pneumonia

- ◊ Previous signs
- ◊ Chest indrawing

3. Very severe pneumonia:

Child has all previous manifestations plus the following danger signs

- ◊ Grunting
- ◊ Unable to drink
- ◊ Sleep disturbance
- ◊ Severe malnutrition
- ◊ Assess WBCs & culture for the organisms

Nursing Management:

The infant who has pneumonia needs rest and is disturbed as little as possible. His respiratory status is assessed frequently and appropriate measures instituted fluids are necessary to maintain electrolytes and normal specific gravity of the urine, but the infant should not be forced to eat since he is anorexic. Intravenous therapy may be necessary the infant may position change will prevent the pooling of secretions and maintain

adequate circulation postural drainage and clapping may be necessary to assist the infant in relieving congestion.

Taking and accurate temperature is important in preventing febrile convulsion. If the infant temperature is 38.9°C (102°F) the nurse administers the prescribed antipyretic. A fever of 39.4°C (103°F) or above necessitates a sponge bath with tepid water. A distended abdomen may be indicative of constipation, paralytic ileus or swallowed air due to mouth breathing. A rectal tube may provide some relief for constipation and swallowed air or the physician may order an enema. Excoriation due to copious nasal discharge may be prevented through effective skin care.

The nurse observe the child for signs of tension pneumothorax due to empyema, particularly if the pneumonia is staphylococcal in origin an abrupt onset of pain, dyspnea cyanosis and absent or diminished chest movement on one side indicates the need for thoracentesis.

The spread of a staphylococcal infection is a night mare in a pediatric unit. The infant with staphylococcal pneumonia is placed on strict isolation and meticulous precautions are observed by all who care for him, the nurse may have to intervene by all who care for him. The nurse may have to intervene with allied

hospital personnel by teaching them the importance of carrying out strict isolation technique. The infant needs oxygen therapy and blood determination for electrolytes, hemoglobin hematocrit, white blood cell count and differential, and so forth, therefore the nurse aids in the prevention of spread of a staphylococcal infection by ensuring the observance of strict isolation technique by hospital personnel.

Research Methodology

◊ **Study Design:**

This descriptive study data collection done by collecting information from nurses through questionnaire about assessment of nurses knowledge regarding pneumonia.

◊ **Study Area:**

This study area is Emak Nimer University hospital as Shendi city, river Nile State, Sudan. Which is located north of Khartoum about 167km, population about 80000 persons (who 2003) most of them are farmers.

◊ **Study Population:**

The population in this study include the nurses who working in Elmak Nimer University Hospital.

◊ **Sampling & Sample Size:**

All nurses in Elmak Nimer University Hospital. The size of sample about 50 nurses.

◊ **Data Analysis:**

The collected data will be computerized, analyzed tabulated by using appropriate statistical analysis program.

Results

Table No (1) Show Qualification:

Qualification	Frequency	Percentage
Diploma	12	24%
Bachloria	38	76%
Post graduate	0	0%
Total	50	100%

Figure No (1) Show Qualification:

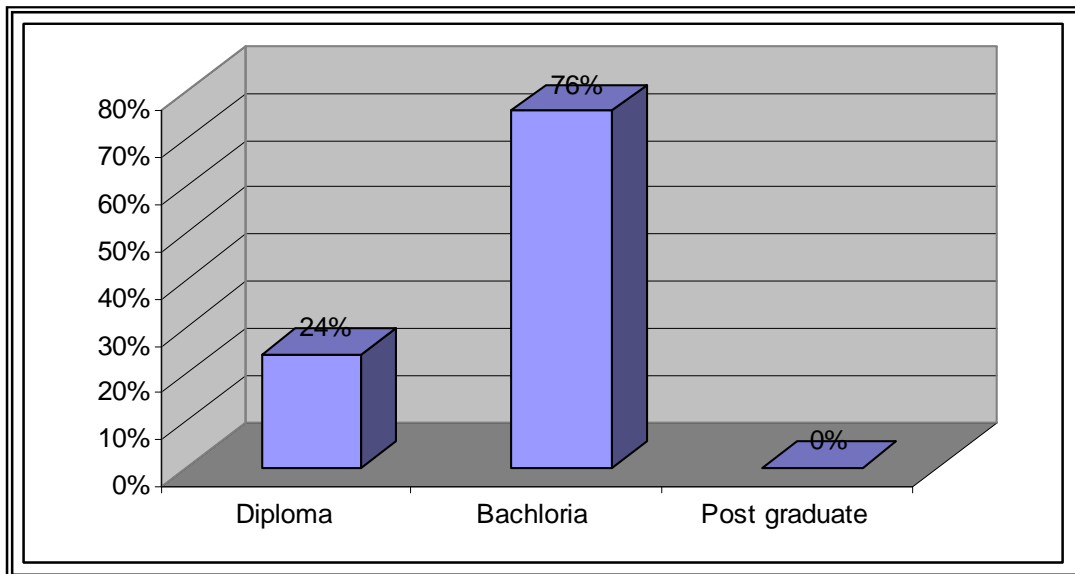


Table No (2) Show years of experience:

Years of experience	Frequency	Percentage
< 2 year	27	54%
2 – 3 years	15	20%
> 4 years	13	26%
Total	50	100%

Figure No (2) Show years of experience:

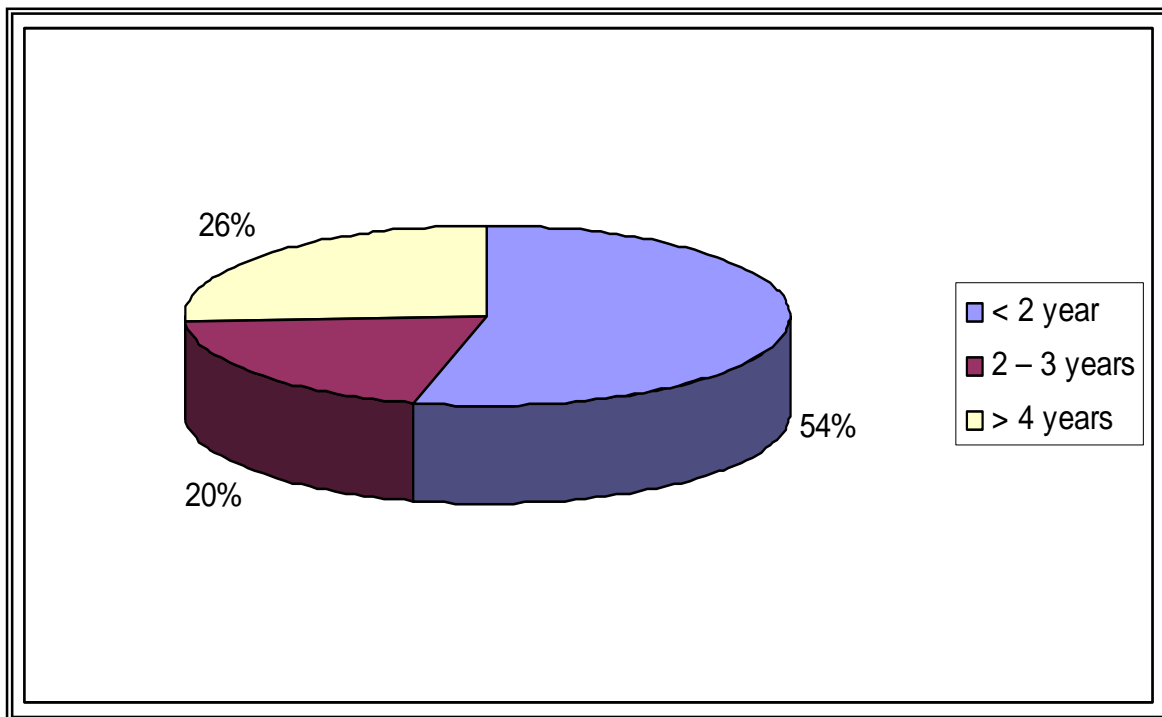


Table No (3) Show where are you working:

Where are you working	Frequency	Percentage
Surgical word	10	20%
I.C.U	2	4%
Pediatric	10	20%
Medical word	9	18%
Other	19	38%
Total	50	100%

Figure No (3) Show where are you working:

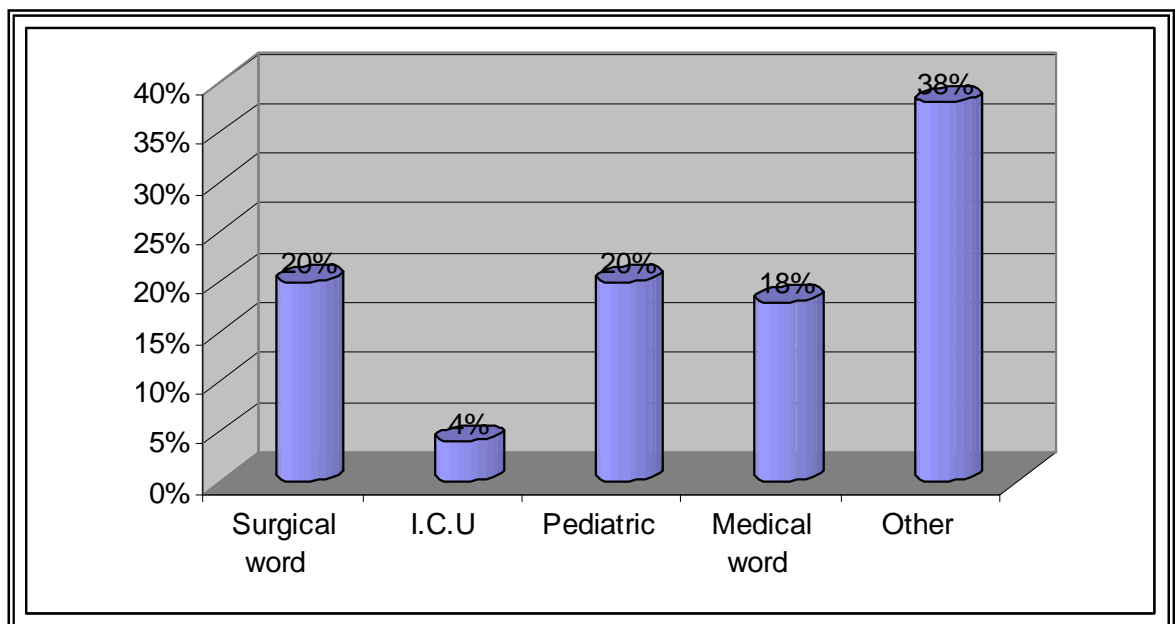


Table No (4) assessment of nurses knowledge about common types of upper respiratory infection:

Common types of upper	Frequency	Percentage
Pharingites	12	24%
Larengites	2	4%
Asthma	9	18%
Pneumonia	27	54%
Total	50	100%

Figure No (4) assessment of nurses knowledge about common types of upper respiratory infection:

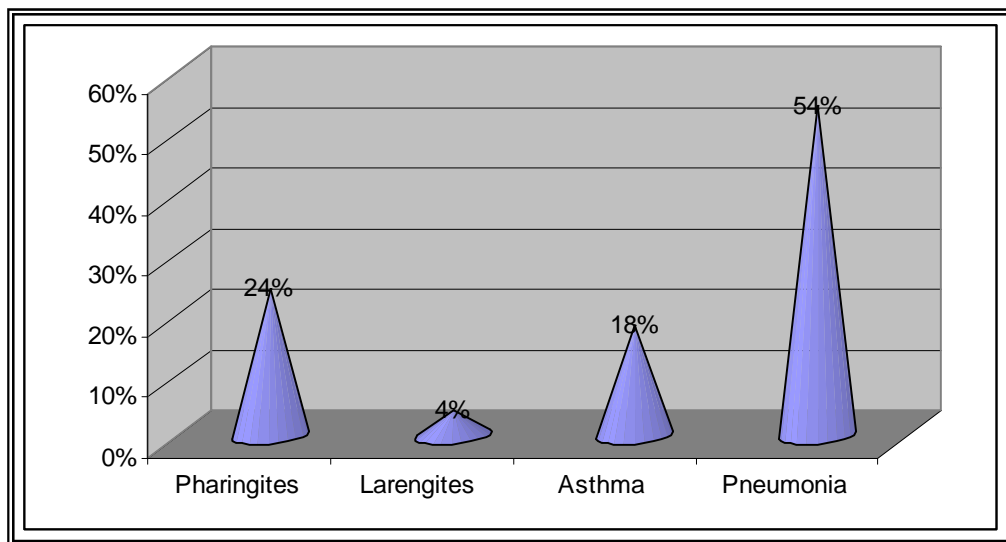


Table No (5) assessment of nurses knowledge about what is pneumonia:

What is pneumonia	Frequency	Percentage
Viral infection	18	36%
Bacterial infection	23	46%
Others	9	18%
Total	50	100%

Figure No (5) assessment of nurses knowledge about what is pneumonia:

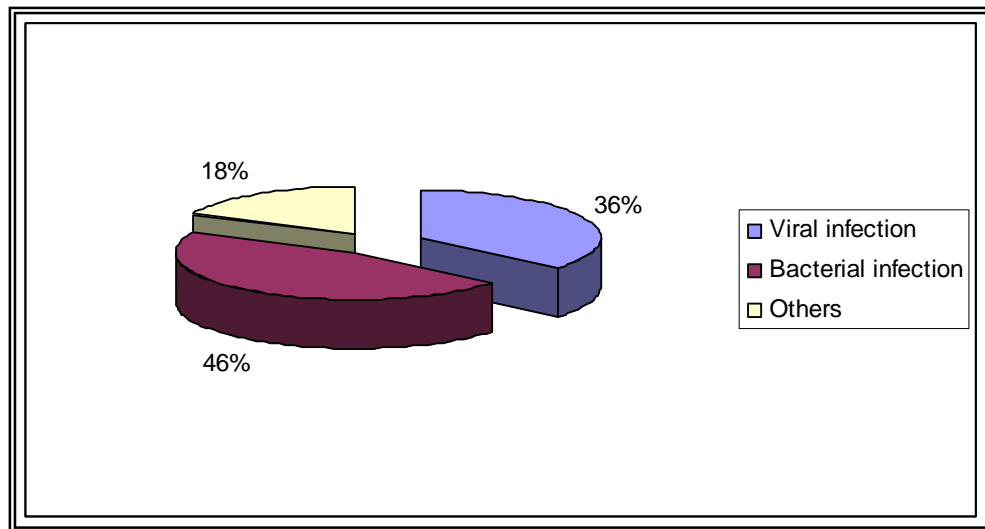


Table No (6) assessment of nurses knowledge about early nursing evaluation of pneumonia patient:

Evaluation of pneumonia	Frequency	Percentage
Chest sound	12	24%
Check V/S	31	62%
Check O2	7	14%
Total	50	100%

Figure No (6) assessment of nurses knowledge about early nursing evaluation of pneumonia patient:

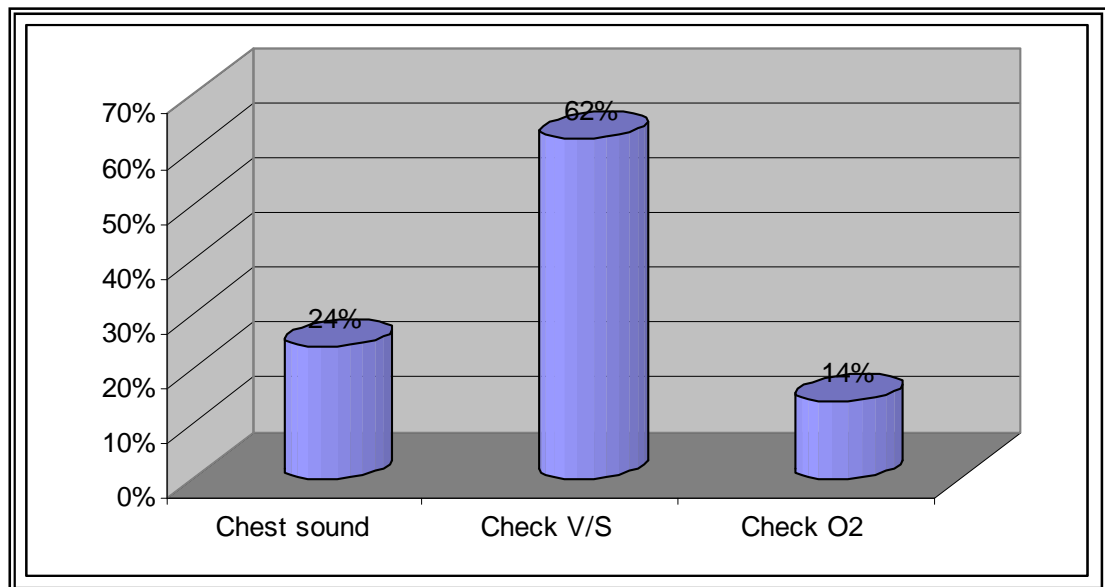


Table No (7) assessment of nurses knowledge about what is the types of pneumonia according to causative agent?

Types of pneumonia according to causative agent	Frequency	Percentage
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Viral	18	36%
Bacterial	26	52%
Hydrocorponic	4	8%
Lipid	2	4%
Total	50	100%

Figure No (7) assessment of nurses knowledge about what is the types of pneumonia according to causative agent?

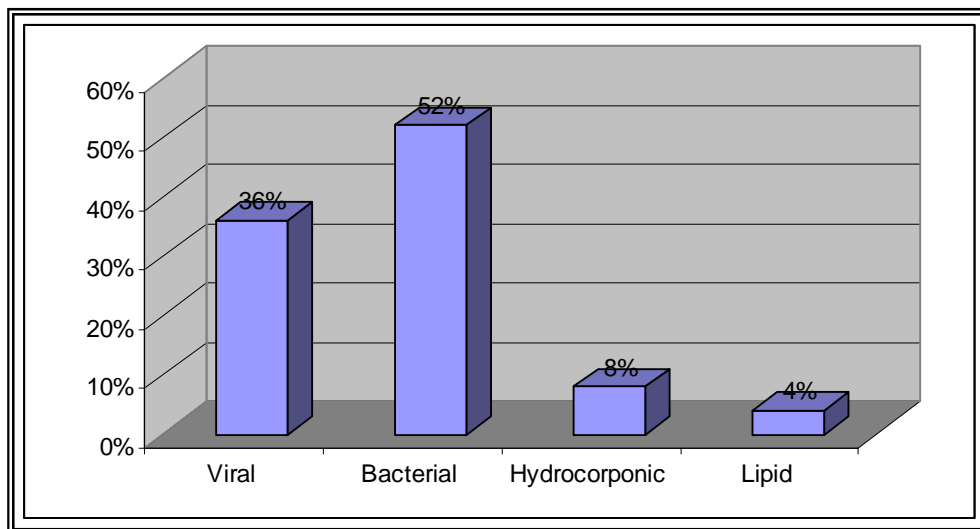


Table No (8) assessment of nurses knowledge about causes of hydrocarponic pneumonia :

Causes of hydrocarponic pneumonia	Frequency	Percentage
Kerosene aspiration	22	44%
Toxicity	13	26%
Foreign body	15	30%
Total	50	100%

Figure No (8) assessment of nurses knowledge about causes of hydrocarponic pneumonia :

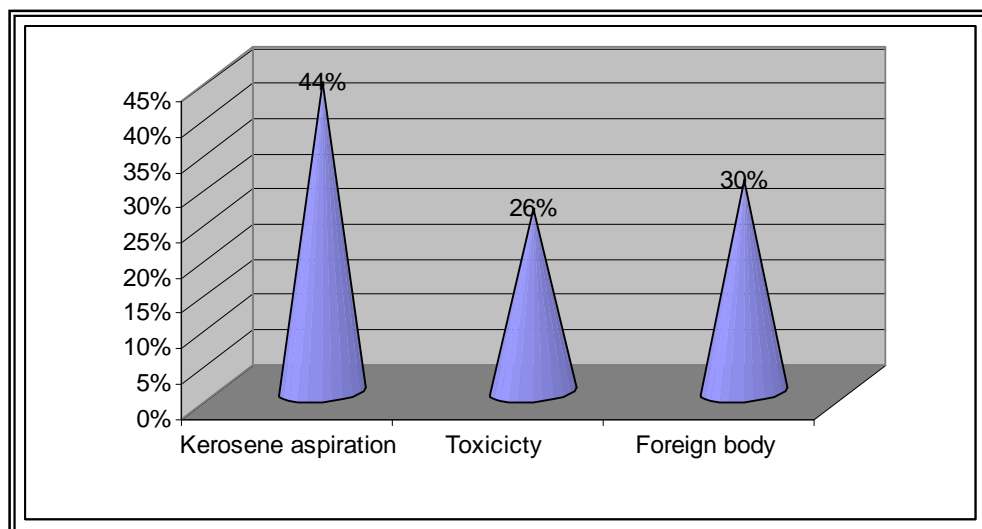


Table No (9) assessment of nurses knowledge about management lipid pneumonia:

Management lipid pneumonia	Frequency	Percentage
Fluids	2	4%
O2 therapy	5	10%
Suction	9	18%
All of them	34	68%
Total	50	100%

Figure No (9) assessment of nurses knowledge about management lipid pneumonia:

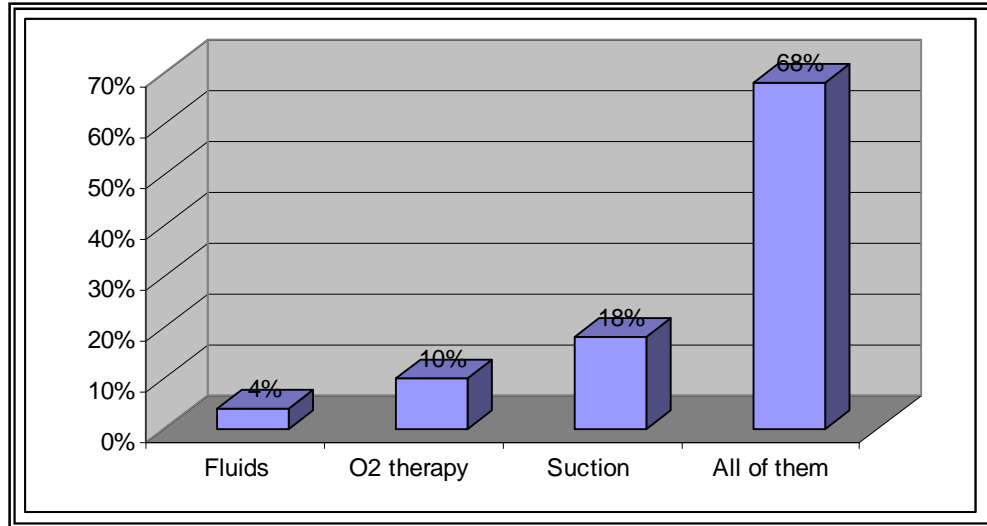


Table No (10) assessment of nurses knowledge about laboratory investigations of pneumonia:

Laboratory investigations of pneumonia	Frequency	Percentage
TWBCs	14	30%
Chest x-ray	10	20%
Sputum culture	0	0%
All of them	25	50%
Total	50	100%

Figure No (10) assessment of nurses knowledge about laboratory investigations of pneumonia:

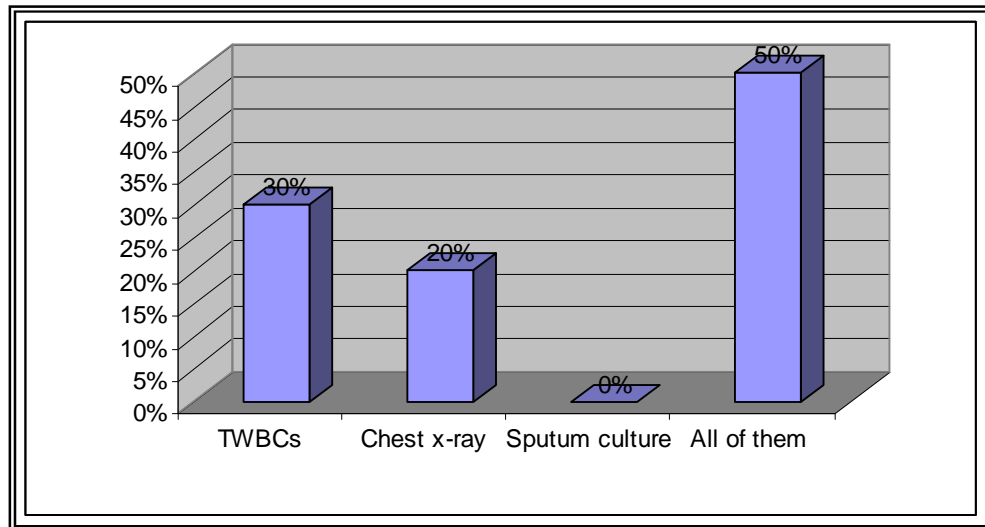


Table No (11) assessment of nurses knowledge about nursing management of pneumonia:

Nursing management of pneumonia	Frequency	Percentage
Good ventilation	5	10%
Cold compression	0	0%
Check V/S	5	10%
All of them	40	80%
Total	50	100%

Figure No (11) assessment of nurses knowledge about nursing management of pneumonia:

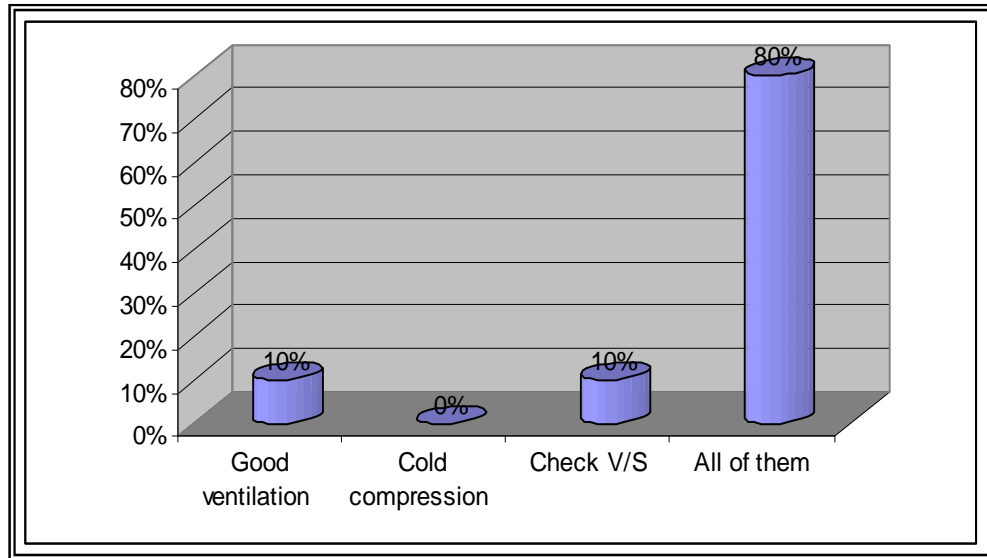


Table No (12) assessment of nurses knowledge about classification of pneumonia according to side of infection:

Classification of pneumonia according to side of infection	Frequency	Percentage
Mild	2	4%
Sever	13	26%
Lobal	35	70%
Total	50	100%

Figure No (12) assessment of nurses knowledge about classification of pneumonia according to side of infection:

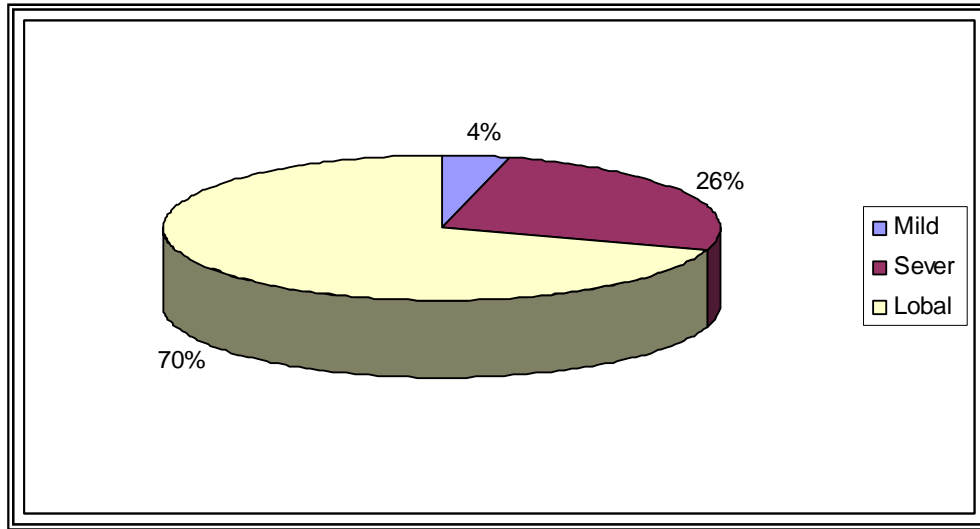


Table No (13) assessment of nurses knowledge about complication of pneumonia:

complication of pneumonia	Frequency	Percentage
Syanousis	8	16%
Convulsion	15	30%
Respiratory failure	27	54%
Total	50	100%

Figure No (13) assessment of nurses knowledge about complication of pneumonia:

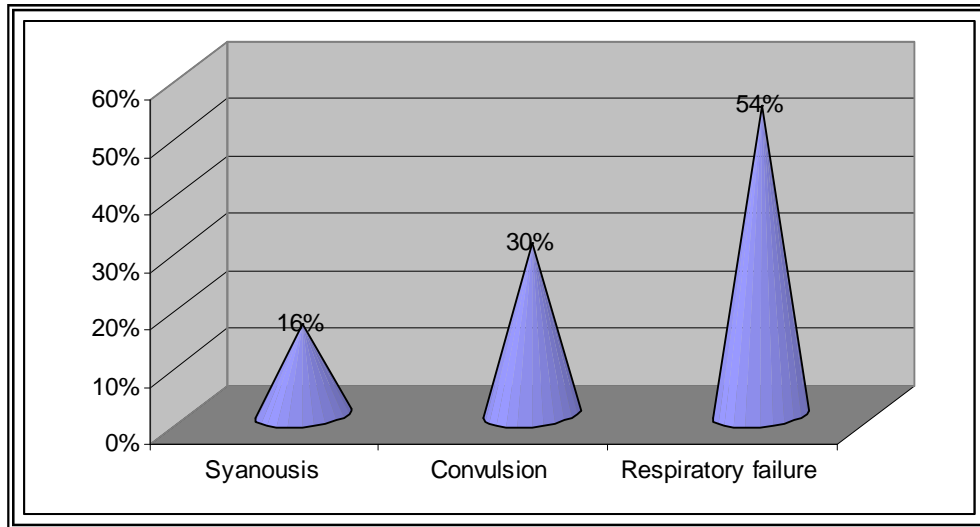


Table No (14) assessment of nurses knowledge about treatment of pneumonia:

Treatment of pneumonia	Frequency	Percentage
Antibiotics	35	70%
Antipyretic	5	10%
Fluids	4	8%
O ₂ therapy	6	12%
Total	50	100%

Figure No (14) assessment of nurses knowledge about treatment of pneumonia:

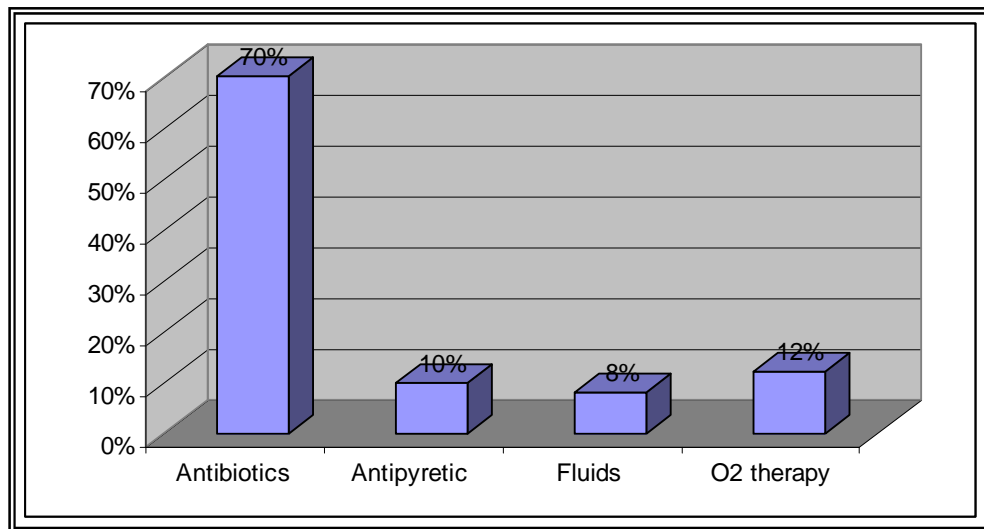


Table No (15) assessment of nurses knowledge about pneumonia fever is:

Pneumonia fever	Frequency	Percentage
High greed fever	50	100%
Low greed fever	0	0%
Normal temperature	0	0%
Total	50	100%

Figure No (15) assessment of nurses knowledge about pneumonia fever is:

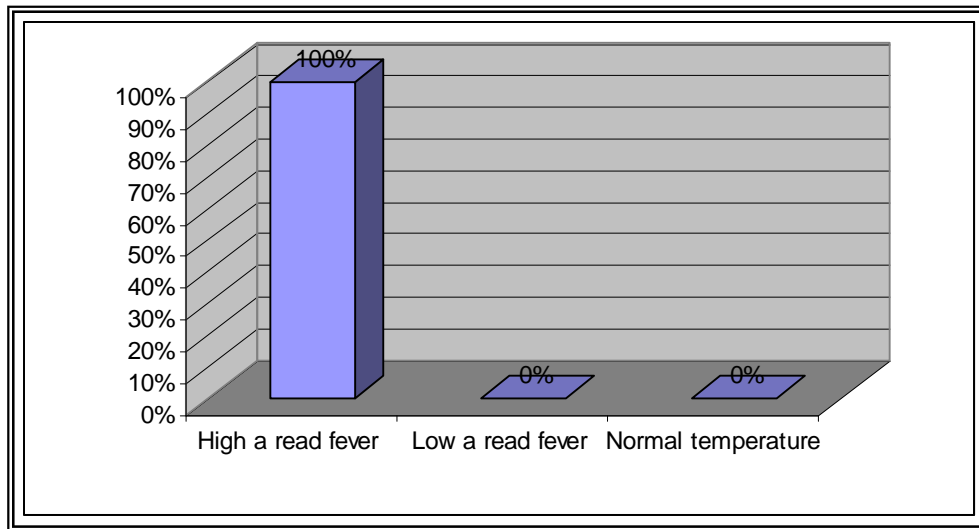


Table No (16) assessment of nurses knowledge about pneumonia common in child age:

Pneumonia common in child age	Frequency	Percentage
Infant	10	20%
Todller	15	30%
School age	25	50%
All age	0	0%
Total	50	100%

Figure No (16) assessment of nurses knowledge about pneumonia common in child age:

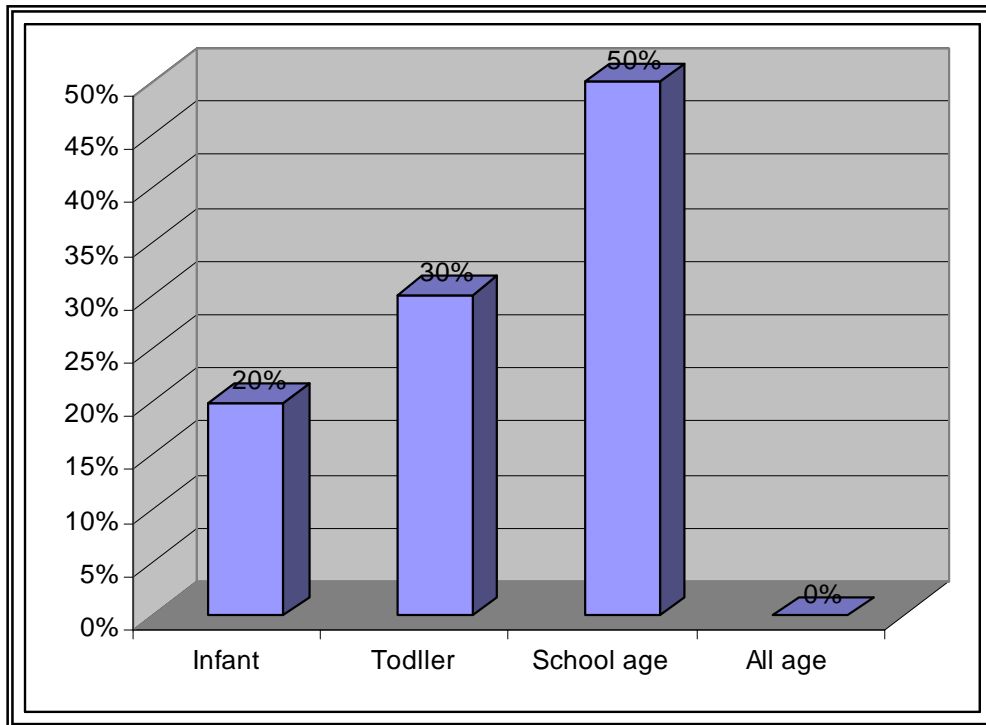
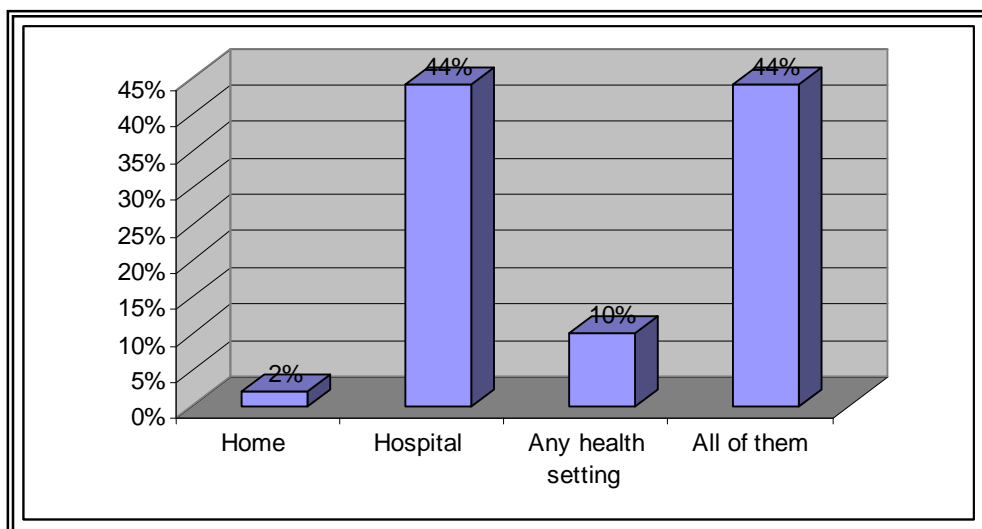


Table No (17) assessment of nurses knowledge about care pneumonia must be a given in:

Care pneumonia must be a given	Frequency	Percentage
Home	1	2%
Hospital	22	44%
Any health setting	5	10%
All of them	22	44%
Total	50	100%

Figure No (17) assessment of nurses knowledge about care pneumonia must be a given in:



Discussion

This study is a descriptive analytic based cross sectional study injuries in Elmak Nemer university hospital as so nurses wear included in this study in the period extending from December 2009 to march 2010.

A pre tested and pre coded questionnaire consisting of 17 open and closed ended questions was used it involved so nurses their ages more ranged between 20 – 30 years. Their education levels wear varied the bachloria level (76%) and the diploma (24%) and post graduate level (0%) that means there is increase a mearness about pneumonia with increase educational level figure (1) in this study may show nurses years of experience >2

year (54%) and 2-3 year (20%) and > 4 year (26%) that means common worker in this hospital were experience less than 2 years put more experience per year is low.

This study showed that more than (38%) of nurses working in other word of hospital put in surgical word (20%) ICU (23%) medical word (18%) and pediatric (20%) that means the nurses in pediatric word is little, table (3)

In this study may show common types of upper respiratory infection the nurses knowledge lead pharyngites (24%) laryngitis (4%) asthma is pneumonia (54%) in addition to that about tow third of them have little knowledge about upper respiratory infection table or figure (4).

Further more than knowledge about pneumonia viral infection (36%) bacterial infection (46%) other cause (18%) That means nurses knowledge about cause of pneumonia is little, table (5)

In this study may showed early nursing evaluation of pneumonia patient resulting of chest sound (24%) chest V/S (62%) and check O₂ (14%) that means more responsibility in hospital depend on basic nursing V/S , table (6).

In addition the study revealed that types of pneumonia according to causative agent led to viral (36%) bacteria (52%) hydrocarbonic (8%) and lipid (4%) that means nurses knowledge about hydrocarbonic and lipid pneumonia less because this type is uncommon in hospital, table (7)

This study showed causes of hydrocarbonic pneumonia led to (44%) kerosene aspiration (26%) toxicity and (30%) foreign body, table or figure (8)

By asking of management of lipid pneumonia result of knowledge fluids (4%) O₂ therapy (10%) suction (18%) and all of them (68%) that means knowledge about lipid pneumonia little associated that the management is unknown (suction 18%) table (9).

This study showed that more than (50%) of nursing say all investigation of pneumonia must be made such as TWBC chest x-ray put (28%) showing TWBCs (20%) chest x-ray sputum clear high significant value (0%) table (10)

In this study showing nursing management of pneumonia the nurses asked by good ventilation (10%) Check V/S (10%) all of them (80%) that means basic management of pneumonia is good in nurses, table (11).

Classification of pneumonia according to site of infection lead to mild (4%) sever (26%) lobal (70%) that means knowledge about site of infection good (70%) table (12)

Complication of pneumonia is very important and lead to prevention and avoidance of problem nurses knowledge syanousis (16%) convulsion (30%) respiratory feluer (54%) that means knowledge of complication less . table (13)

In this study showing treatment of pneumonia antibiotics (70%) antipoetic (10%) fluids (8%) O2 therapy (12%) that means more treatment of pneumonia antibiotics, table (14)

In table (15) show pneumonia fever is high grade fever (100%) that means nurses knowledge good about pneumonia sign and symptom , table (15)

In addition of that pneumonia (on non in child age infant (20%) tollder (30%) school age (50%)

All age (0%) that means nurses knowledge is suitable, table (16)

Finally showing about care pneumonia must be given in home (2%) hospital (44%)any health setting (10%) all of them (44%) that means nurses is good knowledge about care setting

according to seventy of pneumonia put must care in hospital.
(44%), table (17).

Conclusion

Nurses in Elmack Nimer university hospital were little knowledge about pneumonia generally all this results are reflecting a poor knowledge among nurses in Elmack Nimer university hospital

Recommendation

- 1- Pneumonia is common causes of morbidity and mortality of child in first child hood because that pneumonia must be put in strategic plan for pneumonia evaluation and care.
- 2- Nurses need more training and learning about pneumonia
- 3- In Elmak Nemir hospital they need more responsibility regard nurses experience and shorting staff and exeduale
- 4- Pneumonia need vaccination before prevention

5- Practical skills is main topic for good nursing care and good out come in health cietting

Summary

Pneumonia:

Description:

A viral or bacterial pulmonary infection occurring frequently in infancy and early childhood. It may be a primary disease or be the result of another illness. It may be a primary disease and consolidation of pulmonary parenchyma. It is classified by the causative agent with viral being more common (most often respiratory syncytial virus) the bacterial form is caused most often pneumococci, streptococci, staphylococci or

Chlamydia, and early spring, Chlamydia is severe diffuse and often difficult to treat. Staphylococcal often is primary infection (usually nosocomial in origin) and streptococcal lobular, less common is spread via the lymphatic system.

Signs and symptoms:

A) Viral: Acute or insidious onset slight or severe cough, slow to high grade fever, malaise to lethargy.

Bacterial: Abrupt onset, lethargy, preceded by viral infection, respiratory

B) Distress, shocky appearance, decreased breath sounds, coarse crackles friction rub, use of accessory muscles, nasal discharge.

Diagnostic procedures:

A) Viral: CXR reveals diffuse infiltrates

B) Bacterial: CXR shows patchy consolidation of one or more lobes peripherally (staph) or pleural effusion (strep)

Medical interventions:

Medications: Antibiotics – antipyretics – inhaled

Treatment: Mention patient air way – fever reduction, oxygen, pulmonary hygiene (CPT. updrafts)

Surgery : Unnecessary

Nursing intervention:

Be alert to sign and symptoms of increasing respiratory distress/failure

- ◊ Monitor for loss of patient air way
- ◊ Assess vital signs hydration status , ABCs comfort level
- ◊ Assess effectiveness of antibiotic and antipyretic therapy
- ◊ Assess effectiveness of oxygen therapy
- ◊ Assist with diagnostic procedures and maintenance of good pulmonary hygiene.

Nursing care plan:

N.D:

Ineffective breathing pattern related to inflammatory process.

Goal:

Child will exhibit normal respiratory function.

Intervention:

- Allow position for comfort
- Promote rest
- Maintaining patent airway

- Provide high humidity atmosphere
- Implement measures to reduce anxiety
- Organize activities to minimize expenditure of energy.

N.D:

Ineffective airway clearance related to increase secretion.

Goal:

Child will be maintain patent airway

Intervention:

- Suction secretion from airway as needed
- Position to aspirate secretion "semi prone, side lying"
- Assist child to expectorate sputum
- Provide neblization with appropriate solution as prescribed
- Ensure adequate fluid intake
- Assist child to cough effectively

N.D:

Fear/ Anxiety related to hospitalization, difficulty breathing

Goal:

Child will remain calm.

Intervention:

- Explain unfamiliar procedures & equipment to the child
- Remain with child during the procedures.
- Hold & cuddle the child whenever possible

- Be aware of child's sleep/ rest cycle
- Provide security devices such as familiar toys & blanket
- In still confidence in both parents & child

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Shendi University
High Faculty of Nursing
Post Graduate Level

Assessment of Nurses Knowledge about Pneumonia

(1) Qualification:

- a/ Diploma b/ Bachloria
- c/ Post grand studies

(2) Years of experience :

- a/< 2 years b/ 2 – 3 years
- c/ >3 years

(3) Where are you working now?

- a/ Surgical word b/ ICU

c/ Pediatric d/ Medical word e/ Other

(4) Common types of upper respiratory infection?

a/ Pharyngitis b/ Laryngitis

c/ Asthma d/ Pneumonia

(5) What is the pneumonia?

a/ Viral infection b/ Bacterial infection

c/ Others

(6) What is early nursing evaluation of pneumonia patient?

a/ Chest sound b/ Check V/S

c/ Check O₂ saturation

(7) What is the types of pneumonia according to causes?

a/ Viral b/ Bacterial

c/ Hydro carbonic d/ Lipid

(8) Causes of hydrocarbonic pneumonia?

a/ Kerosene Aspiration b/ Toxicity

c/ Foreign body

(9) Management of lipid pneumonia?

a/ Fluids b/ O₂ therapy

c/ Suction d/ All of them

(10) Laboratory investigation of pneumonia?

a/ TWBCs b/ Chest X-ray

c/ Sputum culture d/ All of them

(11) Nursing management of pneumonia patient:

a/ Good ventilation b/ Cold compression

c/ Check V/S d/ All of them

(12) Classification of pneumonia according to side of infection:

a/ Mild b/ Sever

c/ Lobar

(13) The complication of pneumonia is:

- a/ Cyanosis b/ Convulsion
c/ Respiratory failure

(14) Types of pneumonia treatment:

- a/ Antibiotic b/ antipyretics
c/ Fluids d/ O₂ therapy

(15) In pneumonia patient fever is :

- a/ High great fever b/ Low great fever
c/ Normal temperature

(16) Pneumonia common is child age:

- a/ Infant b/ Toddler
c/ School age d/ All age

(17) Care of pneumonia must be given in:

- a/ Home b/ Hospital
c/ Any health setting d/ All of them