P1314
Can education and electronic prescription improve the use oxygen in acute clinical settings?
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Introduction: Recent data on effects of hyperoxia in patients with coronary artery disease, brain injury [1] and post resuscitation patients [2] have shown increased mortality and morbidity. This calls for efforts to reduce unnecessary oxygen use in hospitals, which we instituted via targeted multidisciplinary education and widening the use of electronic prescription of oxygen between 2008 and 2010.

Method: Cross-sectional point prevalence of oxygen prescribing practice was audited at our teaching hospital in November 2008 and November 2010 including Intensive care, paediatric and maternity wards. Between the 2 oxygen audits, we widened and improved electronic prescribing with a multidisciplinary training program on oxygen use for all caregivers.

Results: At the Nov 2010 point of data collection, 185/265 (70%) patients were on oxygen. Of these a clear valid prescription was noted in 149 (81%); 46% of saturations documented were within target range. The proportion of patients in hospital receiving oxygen had reduced from 28% (191/666) since 2008; the prescription rate improved from 57% to 81%.

Conclusion: With the focus on education, increased awareness through local and national alerts and electronic prescriptions of oxygen, we have noted almost halving of in-hospital oxygen use and higher rates of oxygen prescription. There is however room for improvement in adherence to target oxygen saturation.

References:

P1316
Practical nursing strategies in the management of pneumostoma patients
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Background: In severe emphysema hyperinflation results in reduced quality of life and reduced exercise capacity. Portaero Inc. has developed a technique to create a permanent lumen passage from the parenchyma of the lung through the chest wall (pneumostoma) to enable trapped air to vent. A pilot study demonstrated that the creation of a pneumostoma was feasible, safe and potentially beneficial to patients with severe emphysema.

Objectives: This report describes the nursing strategies developed in association with this novel device.

Methods: Pneumostomatis were created in a series of 8 patients. Tracts were created via a percutaneous incision and placement of an access tube which remained in place for 3-4 weeks. The pneumostomatis were maintained by a disposable tube changed daily by the patient.

Results: Early post operative complications included subcutaneous emphysema (8) and wound infection (1). Identified long term issues were problems with skin integrity (4), superficial granulation tissue (3), recurrent localised infection (2), bleeding and pain within the tract following activity (2). Inserting the daily tube was complicated by angulation and collapsibility of the tract, resistance entering between the ribs and anxiety. These problems were addressed with careful attention to skin integrity, treatment of granulation tissue with topical steroids and medical management of pain and infection. A bronchoscope was used to visualise the tracts, assess patency and identify tract direction or narrowing.

Conclusion: Continuous education and close support from nursing staff while the patients learned to deal with these issues enabled 6 of the patients to maintain a pneumostoma long term (between 6 and 18 months).

P1317
Daily weanscreen in mechanically ventilated patients; effects on sedation, analgesics and duration
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Introduction: The duration of mechanical ventilation (MV-duration) should be limited as much as possible to avoid complications.

Objective: The aim of the study was to find out the impact of a daily weanscreen on MV-duration.

Setting: A 20-bed mixed medical-(neuro-)surgical Intensive Care Unit.

Methods: In 2009 the sedationwean protocol was prescribed every day by the intensivist. In 2010 we introduced a 4 interventions weanscreenprotocol, including: Daily Spontaneous Awakening Trial (SAT), Rapid Shallow Breathing Index (RSBI), Spontaneous Breathing Trial (SBT) and MD enumerates reason to continue. From Januari to December 2010 we assessed all ventilated patients every day from Monday to Friday. The subsequent 4 steps of the weanscreenprotocol were carried out by a ventilation practitioner (R.N.) to promote extubation. The amount of sedatives per year was divided by the number of ventilated patients, resulting in an average dose midazolam/propofol/morphine per patient. The MV-duration was evaluated and compared with 2009.

Results: The 672 patients in 2010 were compared to 594 patients in 2009. SAPSIIV was the same in both cohorts, Median MV-duration decreased from 42 to 38 hours (n.s. Mann-Whitney U test). Together with a small increase in the use of propofol we observed a substantial reduction in the use of midazolam and morphine.

P1318
Home non-invasive ventilation service for patients with chronic respiratory failure
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Background: Home non-invasive ventilation (NIV) in the management of patients with chronic respiratory failure such as Chronic Obstructive Pulmonary Disease (COPD). It was estimated that patients requiring home mechanical ventilation was 2.9 per 100,000 populations in 2004 in Hong Kong.

Introduction: There is increasing use of Non-Invasive Ventilation (NIV) in the management of patients with chronic respiratory failure such as Chronic Obstructive Pulmonary Disease (COPD). It was estimated that patients requiring home mechanical ventilation was 2.9 per 100,000 populations in 2004 in Hong Kong.
Most of them (94.8%) were treated by NIV. The domiciliary NIV program has been established in a local acute hospital to provide optimal and comprehensive care for these patients since 2004.

Methodology: The data were collected over a period of 2 years. A total of 145 patients were recruited since 2005. The gender ratio was about 1:1.7 (61.7% of male and 28.3% of female) with mean age of 71.98±8.91. After receiving domiciliary NIV service, their attendance numbers in emergency department, unplanned admission and length of stay were significantly reduced.

Conclusions: The domiciliary NIV service could provide holistic, continuous and cost-effective care for these high-risk patients with complex needs. It could reduce avoidable healthcare utilization of these patients.

P1319

Concept of caring – Family caregiver’s perspective on end-of-life care in advanced COPD
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Background: Informal family caregivers provide the majority of care to patients with advanced COPD wishing to be cared for and die at home. Little is known about family caregiver’s perspective on end-of-life care.

Aims: This study aimed to conceptualise caregiver’s insight into caring for their family member with advanced COPD.

Methods: This sub-analysis of data was part of a larger study and utilised an exploratory descriptive qualitative design. Eight family caregivers that had cared for a loved one dying at home from COPD committed to semi-structured interviews about their experience. Transcripts of the interviews, field notes and reflective journal entries underwent a qualitative template analysis.

Results: The ‘concept of caring’ was one of five themes identified. Seven sub-themes within this theme describe the level of involvement caregivers had in the care of their family member. Carers understand complex care issues, describe the effect caring has on their own life and demonstrate organisational skills. They describe how family and kinship enable them to care and how they witness, recognise and respond to physical decline and suffering of their dying family member. Caring for their loved one was an all-encompassing, all-consuming affair and left them exhausted but gratified. A novel finding was the caregiver’s detailed knowledge in end-of-life care.

Conclusions: The key finding was family caregiver’s experiential knowledge. This knowledge is largely unrecognised by health care professionals. It remains a challenge to health care professionals to tap into this wealth of caregiver’s experiential knowledge in order to provide better end-of-life care in advanced COPD.

P1320

Clinical effectiveness of manual hyperinflation on atelectasis in patients with acute respiratory failure
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The literature and the clinical experience all demonstrate that manual hyperinflation (MH) in patients receiving mechanical ventilation may improve sputum clearance and ventilation. The purpose of this study was to examine the effectiveness of MH in patients with lung atelectasis associated with ventilation support. Twenty-eight patients with lungs atelectasis associated with ventilation support, and stable vital signs were randomized into either an experimental group (n=14), or a control group (n=14) in the pulmonary intensive care unit of a Medical Center in northern Taiwan. The MH technique was carried out at a rate of 8 – 13 breaths per minute, for a period of 20 minutes each session, 3 times per day until weaned from the ventilator. The control group received standard prescribed mechanical ventilation without supplemental MH. Sputum contents (wet/dry weight ratio, viscosity), respiratory system capacity (spontaneous tidal volume (VT), maximal (PI-max), index of rapid shallow breathing (I/DV), dynamic lung compliance, chest x-ray signs and oxygenation ratio (PaO2/FI02) were all measured just prior to the MH on Day 0 as baseline, and then each day for the next three days. The results showed significant improvements in the scores of the experimental group compared to those of the control group for sputum viscosity (p=0.011) and the index of rapid shallow breathing (p=0.008) after adjusting for covariates. Other outcome variables did not differ significantly between the experimental group and the control group.

Conclusion: MH performed in patients with atelectasis associated with ventilation support significantly improved alveolar recruitment.

P1321

Persistent symptoms of hospitalized COPD patients in the palliative phase
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Introduction: Literature shows that COPD will be the third cause of death worldwide and will lead to increasing health costs. Over time a great amount of severe COPD patients will demand different treatment and counselling with special attention for palliative care. Recently a new guideline has been developed in the Netherlands describing the palliative care for COPD patients. This guideline promotes more attention for quality of life, symptom control and psychosocial support. The first step in improving palliative care is measuring patient’s symptoms and impairments.

Aim: The aim of this study was to measure the incidence of persistent symptoms, fear and depression in admitted COPD patients in the palliative phase.

Methods: 110 COPD patients in the palliative phase admitted to hospital with a COPD exacerbation were included. On day three the CCQ and HADS questionnaires were recorded. The rate of dyspnea, fatigue, fear and depression were scored on day 1 and 7 by means of VAS score (0-10).

Results: The median HADS score fear was 9.5 (1-19), depression was 7 (4-15). The median CCQ score was 3.5 (2.5-4.7). The median VAS score dyspnea day 1 was 3 (3-10), day 7 was 5 (1-9). The median VAS score fatigue day 1 was 7 (5-9), day 7 was 4.5 (1-10). The median VAS score fear day 1 was 3.5 (0-10), day 7 was 2 (0-10). The median VAS score depression day 1 was 5 (0-10), day 7 was 3 (0-10).

Conclusion: Fear and depression scores are high among patients with COPD in the palliative phase at admission in hospital and improve only partly during treatment of the exacerbation. There is no improvement in dyspnea score during admission.

P1322

A survey of nursing staff on intercostal drain (ICD) care in a tertiary centre
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Introduction: A recent audit of ICD’s for pleural effusions in our 800 bedded tertiary centre revealed that in a 2 month period a significant proportion of drains were being managed on non respiratory wards (44% oncology & 16% other medical wards). Guidelines recommend that ICD’s are nursed on wards familiar with drains and their management.

Method: We carried out an anonymous survey of nursing staff to enquire about training, knowledge & comfort in managing ICD’s. The completed survey questionnaires were returned via internal mail.

Results: 110 questionnaires were distributed & 71 were returned (65%). 76% were Staff nurses, 22.5% Sisters & 1.5% were matrons. 77% had been qualified more than 3 years. 38% worked in general medicine, 20% in respiratory, 24% in Oncology & 18% in other specialties. A majority of the nurses felt they did not have adequate training, very few of them had any post registration training.

Conclusion: There is a clear need for education and training for nursing staff who are expected to look after patients with ICD’s. There is also a need for a trust wide chest drain observation chart.

P1324

Evaluation of health quality of patients with asthma and chronic obstructive pulmonary disease
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Background: Bronchial asthma and chronic obstructive pulmonary disease (COPD) are characterized by inflammatory process in the airways, leading ultimately to their obstruction. Complex view on these diseases is associated with patients’ quality of life. Therefore, evaluation of the quality of life is of utmost importance, especially in the complex assessment of therapeutic process.

Objectives: This study aimed at evaluating and comparing life quality in two groups of patients, degree of dyspnea, and level of illness acceptance.

Material and Methods: This study involved 100 patients with diagnosed bronchial asthma or COPD. Mean age of patients was 63 years. Investigative material was obtained with diagnostic poll with the aid of questionnaires based on: Saint George’s Respiratory Questionnaire, Medical Research Council dyspnea scale and Acceptance of Illness Scale. Collected data were analyzed statistically.

Abstract P1322 – Table 1. Summary of findings

<table>
<thead>
<tr>
<th>All</th>
<th>Respiratory</th>
<th>Oncology/Biostatology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean 5, Mode 5</td>
<td>Mean 7, Mode 7</td>
<td>Mean 7, Mode 3, Median 4</td>
</tr>
<tr>
<td>Nurses who feel they have adequate training (pre &amp;or post registration)</td>
<td>18%</td>
<td>43%</td>
</tr>
<tr>
<td>Nursing staff who feel they have adequate training (pre &amp;or post registration)</td>
<td>17%</td>
<td>29%</td>
</tr>
<tr>
<td>Use dedicated chest drain observation chart on ward</td>
<td>24%</td>
<td>100%</td>
</tr>
<tr>
<td>Aware of recommended volume of drainage in 1st hour (1–1.5 litres)</td>
<td>69%</td>
<td>100%</td>
</tr>
<tr>
<td>Aware of observations to be recorded for ICD’s (volume, swelling, bubbling – if applicable)</td>
<td>39%</td>
<td>57%</td>
</tr>
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</table>
Results: In the group of asthmatic patients, total score of SGRQ was 54.9 and was significantly lower than that in the group of patients with COPD – 67.9; p=0.0001. Strong negative correlation of life quality with illness acceptance was shown in both asthmatic and patients with COPD (Rs=0.96, Rs=-0.98; p<0.001). Statistically significant relationship between respondents’ life quality and severity of dyspnea (F=117.31; t=0.83; p<0.0000001).

Conclusion: 1. Statistically significantly lower quality of life is seen in patients with COPD in comparison with asthmatic patients. 2. Quality of life is worsening with more severe or uncontrolled disease. 3. Quality of life of examined patients is closely correlated with level of illness acceptance.

P1325
Nurse care for patients with chest drainage and creation of local procedural standards
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Introduction: Drain is simple or complicated device or entire system, which serves to evacuate unwanted secretions or air from the pleural space. Today, the chest drainage (CD) is frequently used in pneumology. Its application is pathophysiological favourable, because the accumulation of fluid/air in body cavities prevents oxygenation of the cells, slows down mobilisation of collagen, prevents lymphatic drainage and creates a bounded space, resulting to delay the healing process. Aims: Upon nurse assistance during CD to share own experience with formation of the local procedural standards. Methods: From 2007 to 2009 CD was performed on 159 patients (pts). Empyema had 88 cases. CausesComplex Adiposis: 55 pts and pleural effusion: 13 pts. Results: CD was without complications in 134 pts (84.3%). The complications occurred in 31 pts (19.5%). In 7 pts (4.4%) occurred trapped lungs; pain occurred in 6 pts (3.8%); the CD had to be repeated in 6 pts (3.8%), in 4 pts (2.5%) occurred clogging of the drain by fibrin clot. Leakage pleural effusion/empyema into skin was in 3 pts (1.9%); in one patient (0.6%) it was necessary to change the place of the drain. Collapse during CD had 7 pts (4.4%). Conclusions: Lessons from nursing assistance in CD helped us to create the local procedural standards. For successful CD is necessary to meet several conditions. Maintain clear and airtight connection between chest cavity drainage and collection device, reduce inequalities between chest cavity volume and lung tissue and eliminated unwanted the aerodynamic situation.

P1326
Obesity hypoventilation syndrome in the health area of the public company hospital Costa del Sol: Why do women have a higher prevalence?
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Introduction: After detecting in a previous study on the prevalence of obesity hypoventilation syndrome (OHS) in the area of the public company Hospital costa del sol that the prevalence of OHS in women was almost twice the rate of OHS in men (men 22.2%, women 56.81%), we try to find out what could be the factor or factors that determine these results. Material and methods: Design: cross sectional. Subjects: patients treated with BiPAP Homecare. Scope: 2nd Level Hospital (reference population 340,458 inhab- ±

Results: 71 (45.09%) Women 65% - Men 35%. Middle BMI 37±49 years)

Comparison of assessment methods with chest X-ray for postthoracotomy atelectasis
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Introduction: The most common and major pulmonary complications after tho- racic surgery is atelectasis. Chest radiography is the gold standard for diagnosis of postoperative atelectasis that we are faced with restrictions (e.g. pain due positioning, high levels of radiation exposure,...). Thus, this study was aimed to compare chest radiography (as gold standard) and predictor variables such as temperature, O₂ saturation, pulse rate, lung sounds, respiratory rate, respiratory rhythm, in assessing postoperative atelectasis in patients undergoing thoracic surgery, admitted in selected hospital in Khoramabad Iran. Methods: In this descriptive-analytical study 40 patients were selected with purposive sampling. Chest X-ray was performed before and after 48 hours after (Portable) surgery and the predictor variables were assessed too. Contingency coefficient test was used to investigate the relationship between predictor variables and results of chest radiography. Result: Based on chest X-ray results, 47.5 percent of patients were developed atelectasis. Of all predictor factors only lung sounds had the significant association with occurrence of postoperative atelectasis (value 0.652, p<0.001).

Conclusion: According to the easy and safe use of lung sounds auscultation, it is recommended that nurses and doctors can evaluate patients at risk of postoperative atelectasis with this technique and don’t waiting for result of chest radiography.
P1330
Caring for a family member with COPD: Exploring carers' needs
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Background: Research of the impact of Chronic Obstructive Pulmonary Disease (COPD) on patients’ family carers is limited when compared to other chronic diseases such as cancer, heart disease or dementia. The disease places a particular burden on families but their support is crucial for the patient’s adjustment to the disease. However, current knowledge on the specific needs of family carers living with a patient with COPD is scarce.

Aims: This exploratory study aimed to contribute to a better understanding of the family carers’ needs of patients with advanced COPD (stage III and IV).

Methods: Qualitative semi-structured interviews were conducted with ten carers (female=8), with a mean age of 57.6 (SD=7.1) years old. The majority were spouses (n=9) and were caring for more than 4 years (n=6). All interviews were audio-recorded, transcribed and submitted to thematic analysis.

Results: Main results suggest carers’ needs for: i) information about the disease to provide adequate care and to discern between kinds of attention needed to respond to symptoms (e.g., difficulties in recognising when an exacerbation is occurring) (n=8); ii) emotional support, like having someone trustworthy to talk about the caregiving experience (n=4); iii) respite care, in order to allow carers to take some time for their own (n=3); iv) instrumental support, as male carers reported difficulties in providing housework or meal preparation (n=2).

Conclusions: The results strengthen the current state of knowledge regarding caregiving demands within the context of COPD. Understanding family needs providing carers with education about the disease and emotional support is essential to the management of COPD and to support carers in their caregiving role.

P1331
Living with COPD: A perspective on patients’ concerns
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Background: The World Health Organization has emphasised the need for a patient-centred health care for the management of chronic conditions. COPD is a highly incapacitating chronic disease and its non-pharmacological management has been based on pulmonary rehabilitation programs. However, patients’ perspectives regarding their own concerns have received little attention from these programs, which is crucial to design adequate patient-centred interventions.

Aims and objectives: This study aimed to identify the concerns and fears of patients with moderate-to-very severe COPD, regarding their actual and future condition.

Methods: A qualitative, cross-sectional study was carried out with 18 COPD outpatients. Data were collected using audiotaped semi-structured interviews to capture patients’ detailed perceptions. A thematic analysis was performed by 2 independent judges.

Results: Participants were mostly male (n=11; 61.1%), with a mean age of 58.4 (SD=8.3) years old and a mean FEV1 percentage predicted of 43.1 (SD=17.7%). Patients were mainly concerned about the progression of their condition (n=10; 55.5%) associated with the deterioration of their physical capacities (n=5; 27.8%) and becoming older (n=3; 16.7%). Fears about being on their own (n=3; 16.7%) and dying due to their respiratory disease (n=9; 50%), particularly dying of asphyxiation (n=6; 33.3%), were also reported by patients.

Conclusions: The findings suggest that patients with COPD have significant concerns and fears about the irreversible process of their disease. Adequate knowledge about these aspects will allow health professionals to adjust pulmonary rehabilitation programs considering the patients’ emotional needs.