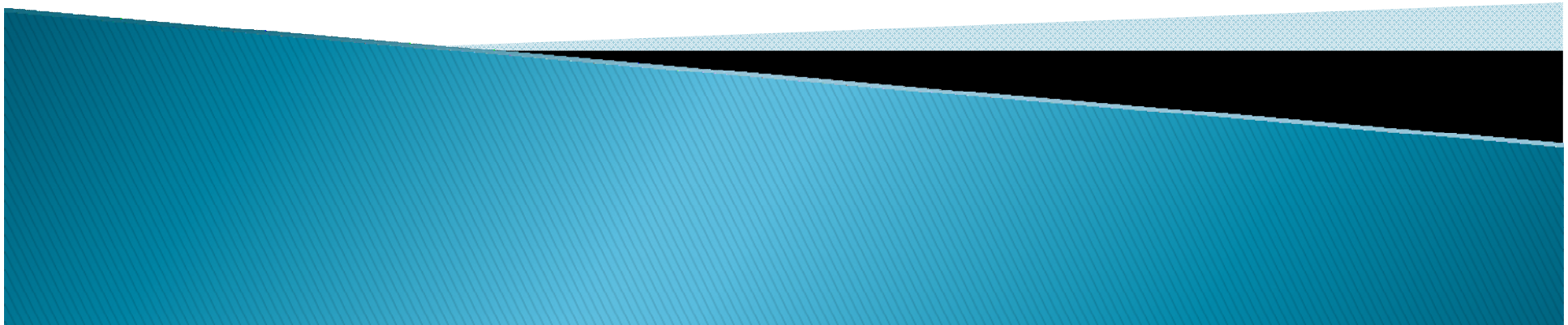


Complications of cancer

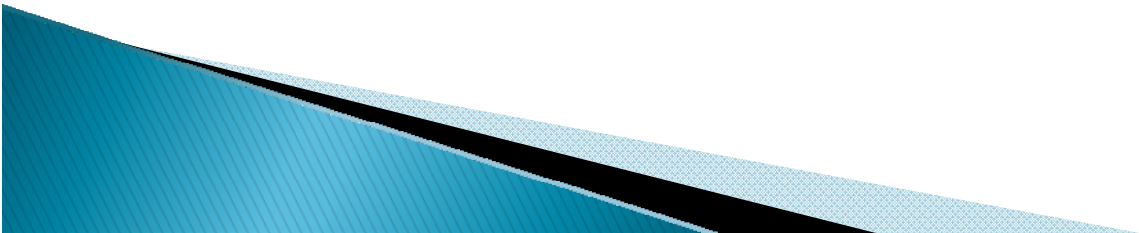
Rod MacLeod PhD FChPM
Hibiscus Coast Hospice and
University of Auckland

GP CME 2009 | 11–14 June | Rotorua Energy Events Centre



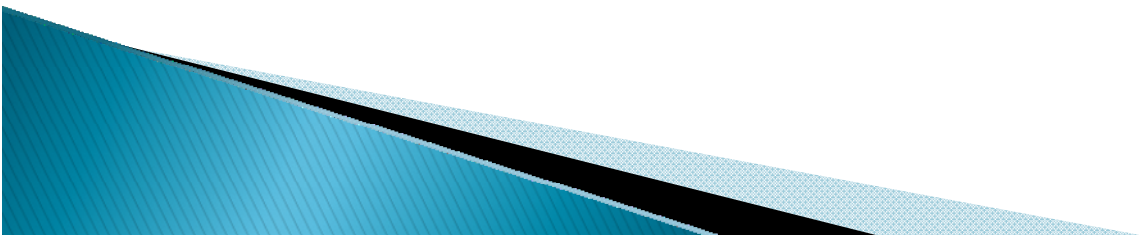
Nausea and vomiting – how common is it?

- ▶ Nausea has a prevalence of 20–30% in all patients with advanced cancer rising to 70% in the last week of life
- ▶ Vomiting has a prevalence of 20% of all patients with cancer (Gynae 42%, stomach 36%)
- ▶ Opioid induced nausea, retching and vomiting occurs in about 30% in the first week of use



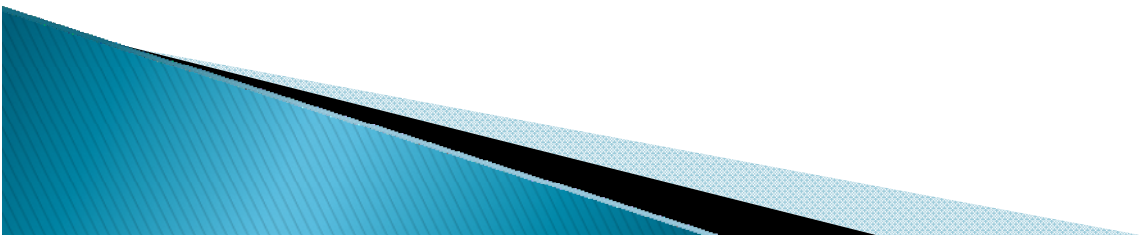
Nausea and/or vomiting

- ▶ higher centre stimulation – fear/anxiety
- ▶ direct vomiting centre stimulation – radiotherapy to the head, raised intracranial pressure
- ▶ vagal and sympathetic afferent stimulation e.g. cough, bronchial secretions, hepatomegaly, gastric stasis, constipation, intestinal obstruction
- ▶ chemoreceptor trigger zone stimulation – uraemia, hypercalcaemia, drugs, e.g. morphine, cytotoxics
- ▶ vestibular nerve stimulation e.g. motion

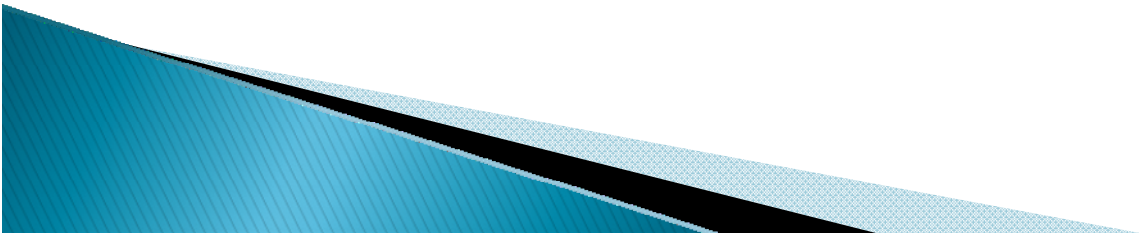


Steps in management

- ▶ diagnose the cause
- ▶ correct reversible causes
- ▶ select a first line anti-emetic
- ▶ manage complications of prolonged nausea and vomiting
- ▶ review is dependent on the response
- ▶ add or switch to second line anti-emetic if vomiting persist after 24–48 hours
- ▶ review...
- ▶ seek specialist help



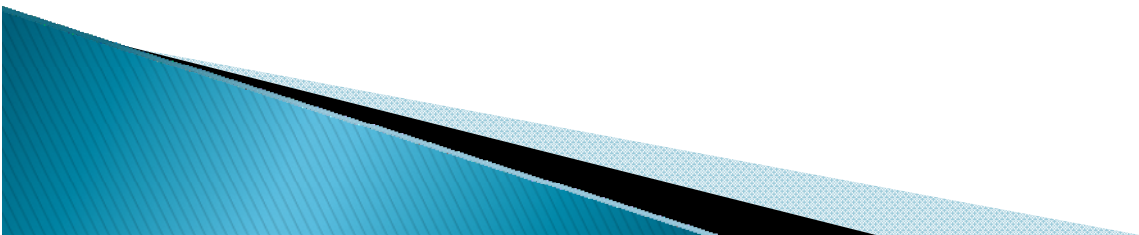
- ▶ **higher centre stimulation**
(emotion – fear/anxiety)
 - primary treatment:
counselling/explanation/listening
 - secondary treatment: benzodiazepine



▶ **vomiting centre stimulation**

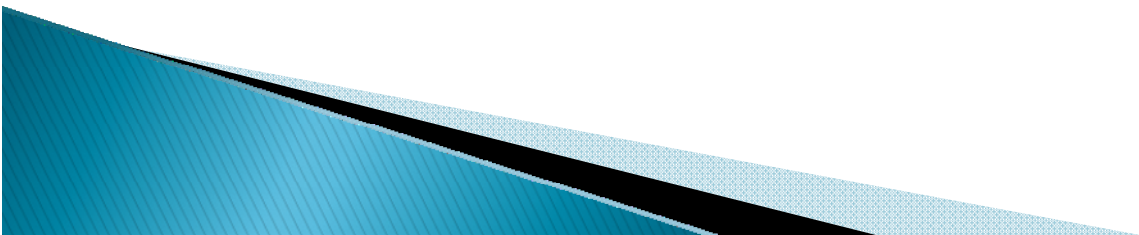
(radiotherapy to the head, raised intracranial pressure)

- primary treatment: cyclizine
- secondary treatment: dexamethasone



- ▶ **vagal and sympathetic afferent stimulation**
 - cough
 - cough ‘linctus’
 - bronchial secretions
 - hyoscine/glycopyrrolate
 - constipation
 - laxatives...
 - hepatomegaly
 - primary treatment: dexamethasone
 - secondary treatment: cyclizine

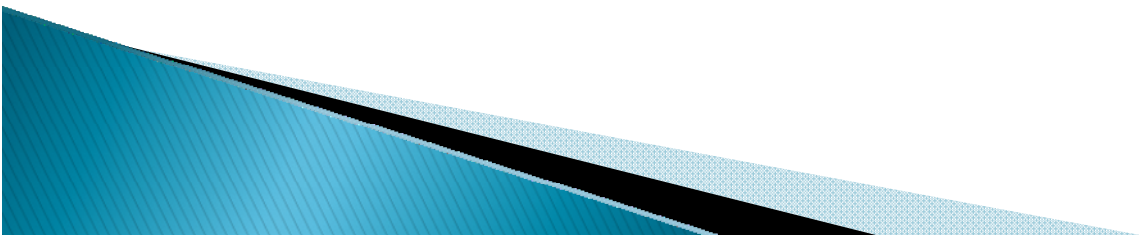
- gastric stasis
 - primary treatment: domperidone
 - secondary treatment: metoclopramide
 - intestinal obstruction
 - primary treatment: cyclizine
 - secondary treatment: levomepromazine
- ▶ avoid prokinetics in true obstruction but they may be useful in partial/ subacute obstruction



▶ **chemoreceptor trigger zone stimulation**

(uraemia, hypercalcaemia, drugs e.g. opioids)

- primary treatment: haloperidol
- secondary treatment: levomepromazine



▶ vestibular nerve stimulation

(motion)

- primary treatment: cyclizine
- secondary treatment: hyoscine patch

Drugs currently being tried in nausea and vomiting include the atypical antipsychotics olanzapine and risperidone. Ondansetron, although not often used in palliative care, may be useful after others have failed

Fatigue

Fatigue

- ▶ is a reduced capacity to sustain force or power output leading to lack of energy and endurance and muscular weakness
- ▶ a reduced capacity to perform mental tasks over time, reflected by
 - poor concentration and memory,
 - lack of interest in activities and
 - daytime sleepiness

It is a subjective experience of being exhausted

Fatigue

- ▶ Malignant and non-malignant conditions
 - multiple sclerosis, heart failure, rheumatoid arthritis, renal failure and chronic obstructive pulmonary disease (COPD)
 - unidentified organic disease,
 - depressive and anxiety disorders,
 - chronic infection,
 - immune dysfunction,
 - muscle dysfunction and
 - sleep disorders

Causes of fatigue in cancer

- ▶ liberation of intracellular products and metabolites from cell lysis and tumour necrosis following therapy
- ▶ changes in skeletal muscle protein stores influenced by tumour necrosis factor

- ▶ cachexia/nutritional status
- ▶ dehydration (⇒ fluid and/or electrolyte imbalance)
- ▶ infection (alteration of immune status)
- ▶ anaemia
- ▶ chronic hypoxia (dyspnoea)
- ▶ neurological

- ▶ 'psychogenic'
- ▶ metabolic/electrolyte
- ▶ endocrine
- ▶ insomnia
- ▶ immobilisation
- ▶ pharmacological toxicity (opioid sedation, alcohol, chemotherapy)

Tools to assess fatigue

- ▶ Profile of Mood State (POMS)
- ▶ some subscales of broader QOL scales
 - SF-36
 - EORTC QLC-C30
- ▶ Piper Fatigue Self-report Scale (45 items)
- ▶ Fatigue Symptom Checklist (30 symptoms)
- ▶ Multidimensional Fatigue Inventory (20 items)
- ▶ Brief Fatigue Inventory
- ▶ VAS scale (most – least)

Management of fatigue

- ▶ Patient and doctor anticipate it
- ▶ Physical examination to exclude potential causes
- ▶ Review hydration, nutrition, haematological parameters
- ▶ Patient diary
 - pain
 - nausea
 - sleep
 - constipation
 - medication

Management of fatigue

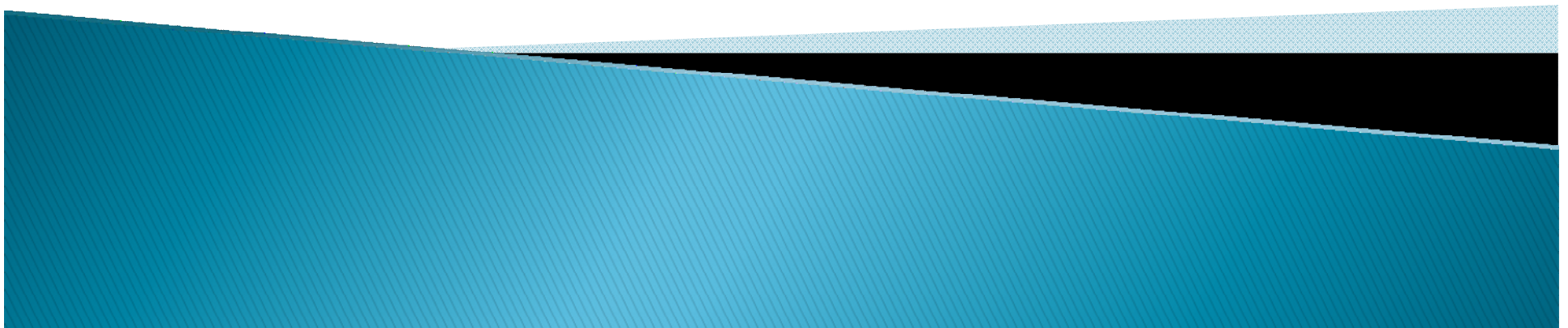
- ▶ Energy conservation?
- ▶ Correct metabolic causes
- ▶ Limited exercise programme
 - simple exercises (physio, OT)
- ▶ Depressive illness management actively
 - relaxation, visualisation, antidepressants, psychostimulants

Management of fatigue

- ▶ Consider megestrol acetate?
- ▶ Consider transfusion?
- ▶ Consider corticosteroids?

Focus on quality of life

Breathlessness



Dyspnoea (breathlessness)

- ▶ rarely will breathlessness be expressed in purely physical terms
- ▶ use a multidimensional approach, as with the assessment of pain

Components of dyspnoea

- ▶ sensation (what it feels like)
- ▶ perception (how it is viewed in the context of the illness)
- ▶ distress (does it cause suffering or grief?)
- ▶ response (how individuals react)
- ▶ reporting (the language used to relay these elements)

“Can you describe in your own words what it feels like to be breathless?”

Four clusters identified

- ▶ physical – difficulty breathing (asthmatic qualities)
- ▶ sensations concerning the upper airway (and some qualities of pain)
- ▶ affective or emotional expressions (fear, anxiety and negative evaluations)
- ▶ low energy

Impaired performance

- ▶ Airflow obstruction of large airways –
 - tumour, extrinsic compression, laryngeal palsy, radiation stricture
- ▶ Airflow obstruction of smaller airways
 - asthma, emphysema, chronic bronchitis, lymphangitis carcinomatosa

- ▶ Decreased effective lung volume
 - effusions, ascites, pneumothorax, extensive tumour, collapse, infection
- ▶ Increased lung stiffness
 - pulmonary oedema, lymphangitis carcinomatosa, fibrosis
- ▶ Decreased gas exchange
 - pulmonary emboli, thrombotic tumour, tumour effect on pulmonary circulation

▶ Pain

- pleurisy, infiltration of chest wall, rib/vertebral fractures

▶ Neuromuscular failure

- paraplegia, phrenic nerve palsy, cachexia, paraneoplastic syndromes

Increased demand

- ▶ Anxiety
- ▶ Anaemia
- ▶ Metabolic acidosis

Management

▶ Drug therapy

– opioids, benzodiazepines or other sedatives, frusemide, steroids inhaled/oral bronchodilators, antibiotics, diuretics, NSAIDs, anticoagulants, chemotherapy, hyoscine/ glycopyrrolate (for retained secretions)

- ▶ Other methods
 - oxygen, physiotherapy, drainage of effusions/ascites, transfusion, radiotherapy/endoscopic palliation, laser/diathermy resection, bronchial stents, brachytherapy
- ▶ Psychosocial support
 - explanation, relaxation techniques, relearning breathing patterns, positioning and reassurance

- ▶ Music therapy and the arts have been successfully used in managing aspects of breathlessness

Superior vena cava obstruction

- ▶ 70% have lung cancer
- ▶ Often first manifestation of disease
- ▶ 2/3 complain of breathlessness
- ▶ ½ complain of facial swelling
- ▶ Radiotherapy is the treatment of choice
 - 70% symptomatic relief in 2 weeks
 - Reduce swelling in 75% of small cell lung cancer patients
- ▶ Life expectancy after diagnosis is about 8 months

Spinal cord compression

- ▶ 5–10% people with cancer
- ▶ Treat as an emergency as outcome depends on speed of diagnosis and treatment
- ▶ Symptoms usually present weeks before neurological impairment
 - Fatigue
 - Pain
 - Change in gait
 - Sensory disturbance (reduced light touch and proprioception)

Spinal cord compression

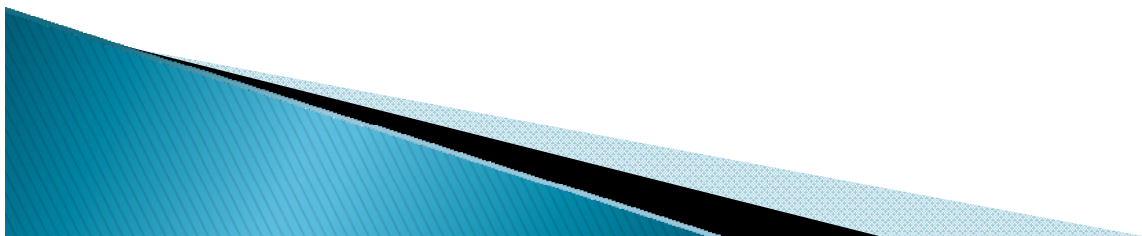
- ▶ back pain and bone changes on spinal x-rays, epidural invasion will have occurred in 60 to 70%
- ▶ referral for MRI should be swift
- ▶ “all those with cancer presenting with back pain, with or without symptoms of cord compression, should be referred for imaging”
- ▶ Dexamethasone 16mg by mouth with analgesia
- ▶ Most patients are offered radiation therapy
- ▶ Surgery followed by radiation may be considered if estimated survival is more than three months
- ▶ “if a patient walks into the radiotherapy unit they will be able to walk out again”

Don't just treat the symptom – look for the causes and remove them if possible

Don't put everything down to cancer

Help people to live every moment

Remember...



**“If I’m dying then I must
be alive”**

When prescribing outside the terms of the licence, prescribers must be fully informed about the actions and uses of the drugs and be assured of the quality of the particular product

www.palliativedrugs.com/using-licenced-drugs-for-unlicenced-purposes

The Palliative Care Handbook

Rod MacLeod, Jane Vella-Brincat, Sandy Macleod (2009)

Published by Nurse Maude Association, Christchurch