

Supplementary Material

Palliative medicine Master Classes for primary care: an evaluation

Amanda Landers^{A,*} MBChB, FRACP, FChPM, *Raewyn Jenkins*^B RN, DipN, MSc and
Persijn J. Honkoop^C MD, PhD

^ADepartment of Medicine, University of Otago, 2 Riccarton Avenue, Christchurch 8140, New Zealand

^BNurse Maude Hospice Palliative Care Service, Merivale, Christchurch, New Zealand

^CSouthlink Health Services, Rangiora Family Doctors, Rangiora, New Zealand

*Correspondence to: Email: amanda.landiers@otago.ac.nz

Supplementary materials S1. Questionnaire Workshop One

GP Workshop Series

Workshop One

Master Class in Opioids

PRE-WORKSHOP QUESTIONNAIRE

Section One

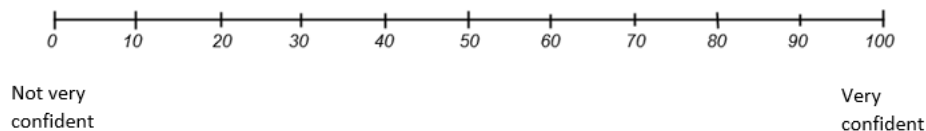
Please circle one each line

Male					
Age	20-29	30-39	40-49	50-59	60-69
Years as a GP	1-5	6-10	11-15	15+	
Palliative patients per year	1-5	5-10	10+		

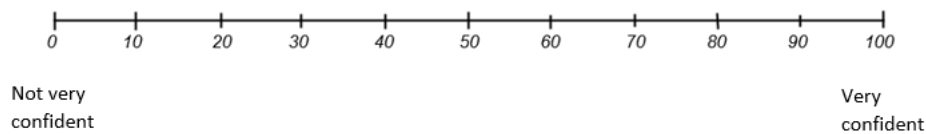
Section Two

Rate your confidence on the following scale by circling a number on the line

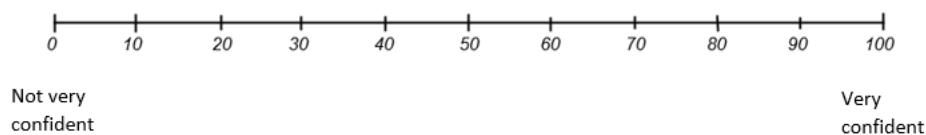
1. I am able to define pain



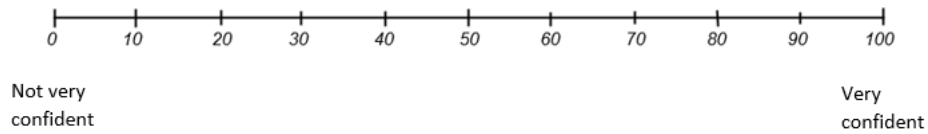
2. I am able to classify pain



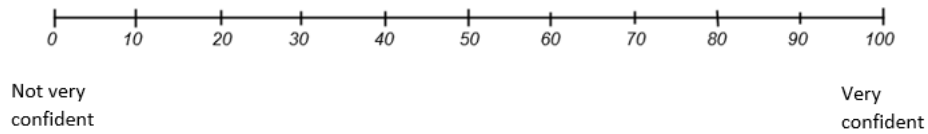
3. I know how opioids work in the body



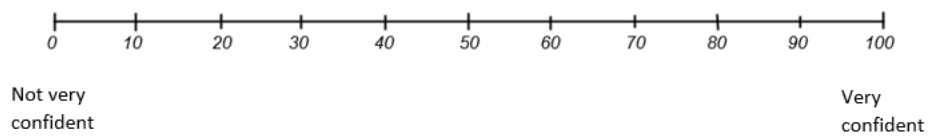
4. I know the adverse effects of opioids



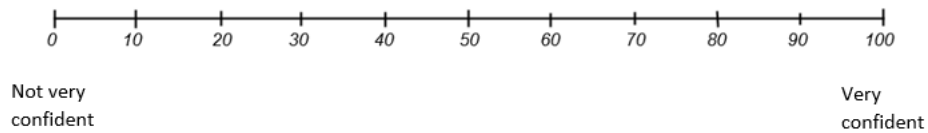
5. I can recognise opioid toxicity in a patient



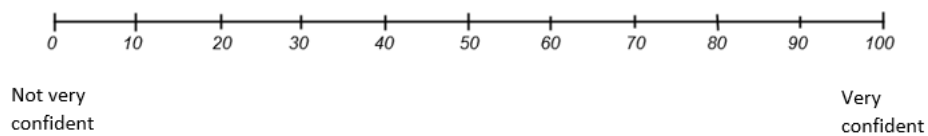
6. I know the difference between tolerance, physical dependence and addiction to opioids



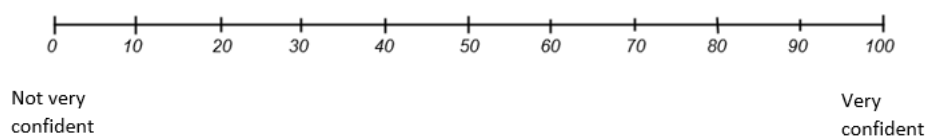
7. I am able to initiate morphine in a palliative patient with pain



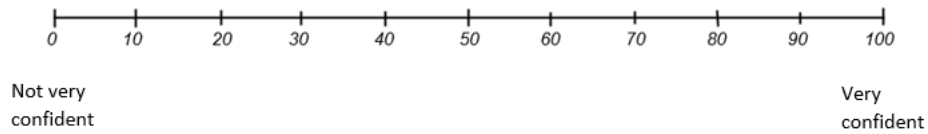
8. I know when to avoid morphine



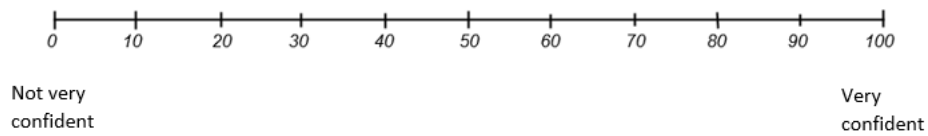
9. I know the differences between oxycodone and morphine



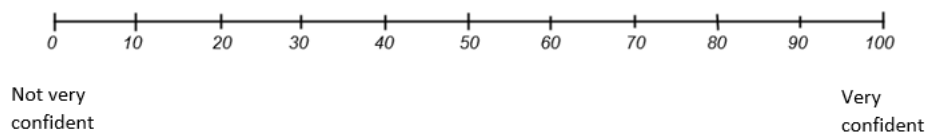
10. I can use oxycodone in appropriate situations



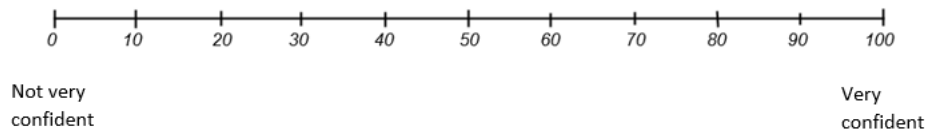
11. I am able to convert oral oxycodone to subcutaneous oxycodone



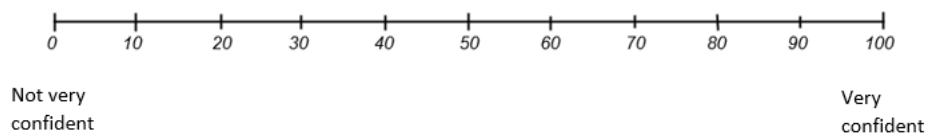
12. I know the differences between morphine and fentanyl



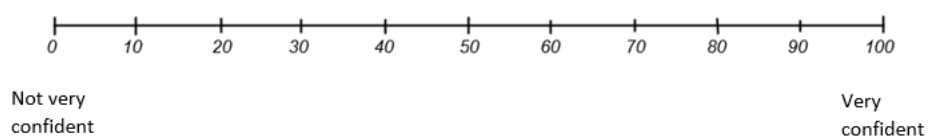
13. I can titrate fentanyl patches safely



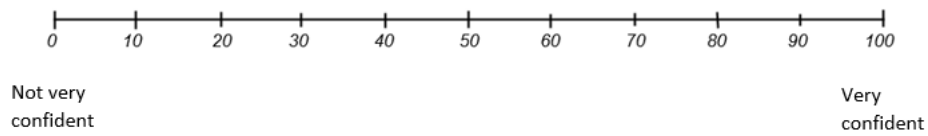
14. I know how to manage incident pain



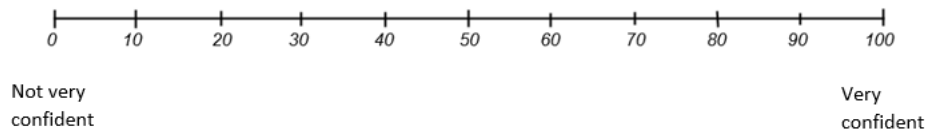
15. I can recognise opioid-induced neurotoxicity



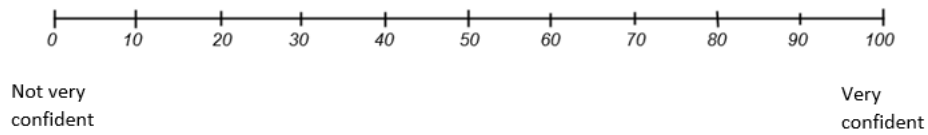
16. I understand the disadvantages of methadone



17. I can manage palliative patients with severe pain on the opioid-substitution programme



18. I know how to prescribe a continuous subcutaneous infusion drug chart



GP Workshop Series

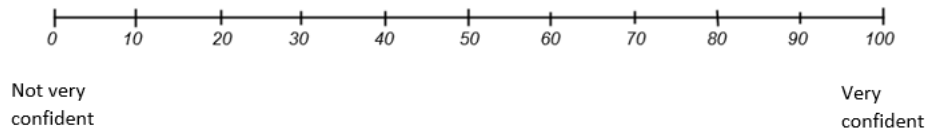
Workshop One

Master Class in Opioids

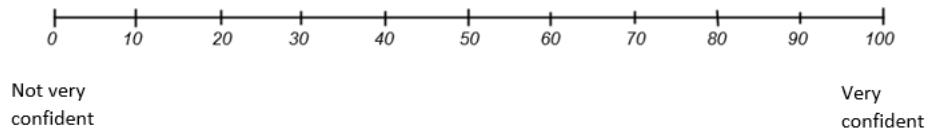
POST-WORKSHOP QUESTIONNAIRE

Rate your confidence on the following scale by circling a number on the line

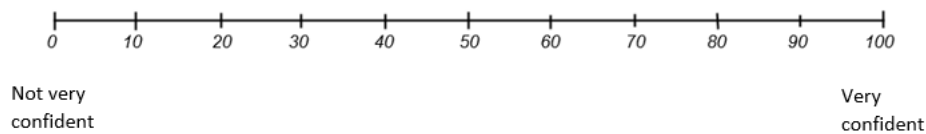
1. I am able to define pain



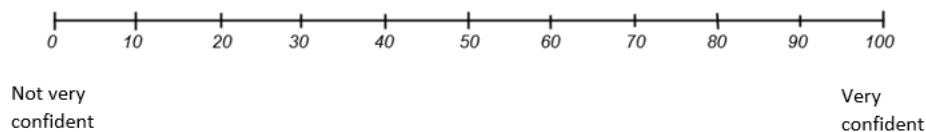
2. I am able to classify pain



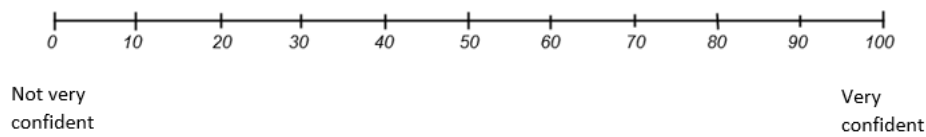
3. I know how opioids work in the body



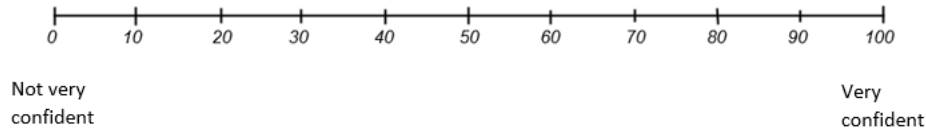
4. I know the adverse effects of opioids



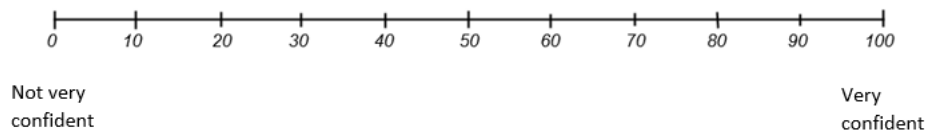
5. I can recognise opioid toxicity in a patient



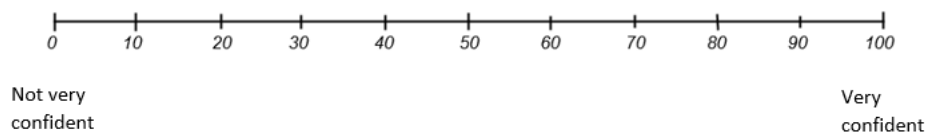
6. I know the difference between tolerance, physical dependence and addiction to opioids



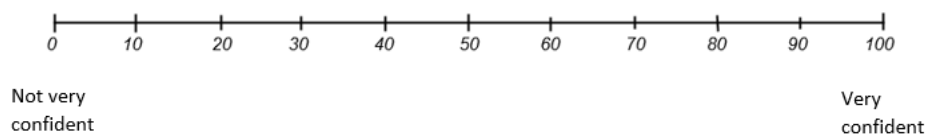
7. I am able to initiate morphine in a palliative patient with pain



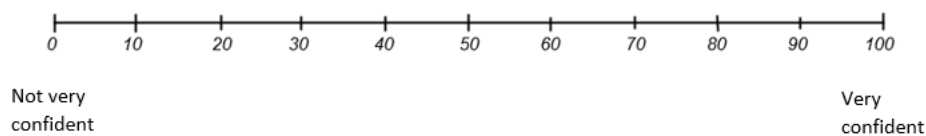
8. I know when to avoid morphine



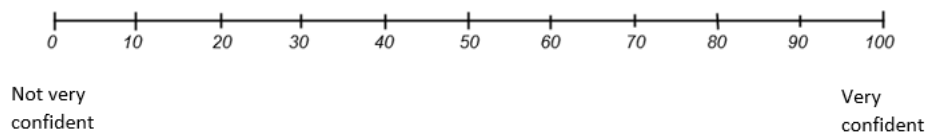
9. I know the differences between oxycodone and morphine



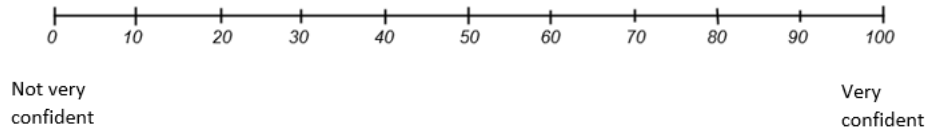
10. I can use oxycodone in appropriate situations



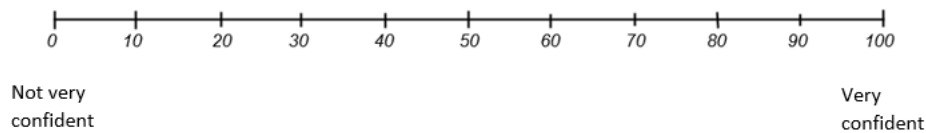
11. I am able to convert oral oxycodone to subcutaneous oxycodone



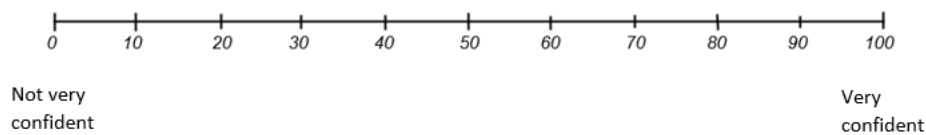
12. I know the differences between morphine and fentanyl



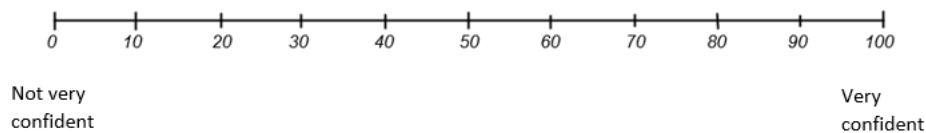
13. I can titrate fentanyl patches safely



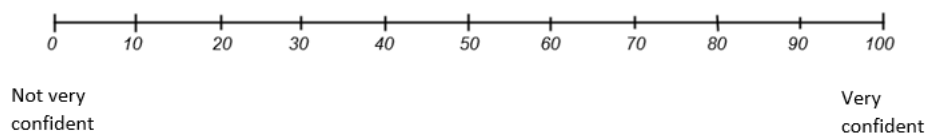
14. I know how to manage incident pain



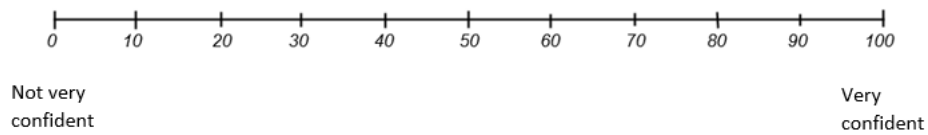
15. I can recognise opioid-induced neurotoxicity



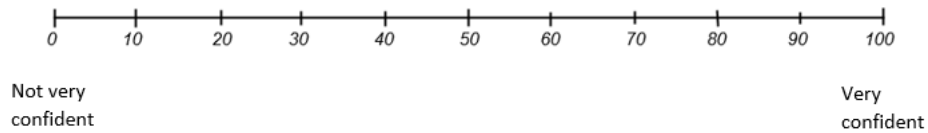
16. I understand the disadvantages of methadone



17. I can manage palliative patients with severe pain on the opioid-substitution programme



18. I know how to prescribe a continuous subcutaneous infusion drug chart



What aspects of the Master Class did you find helpful for your learning?

Was there anything that hindered your learning?

Was there anything that could have been done better?

Thank you

Supplementary materials S2. Questionnaire Workshop Two

GP Workshop Series

Workshop Two

Master Class in Symptom Management

PRE-WORKSHOP QUESTIONNAIRE

Section One

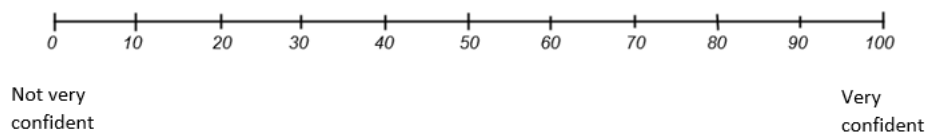
Please circle one each line

Male			Female		
Age	20-29	30-39	40-49	50-59	60-69
Role	Nurse	GP	Other		
Years as a GP/nurse	1-5	6-10	11-15	15+	
Palliative patients per year	1-5	5-10	10+		

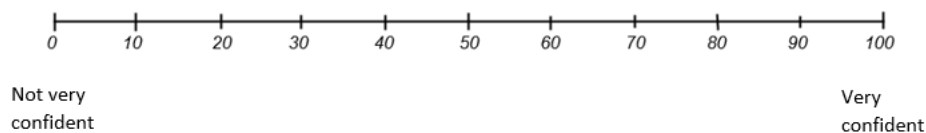
Section Two

Rate your confidence on the following scale by circling a number on the line

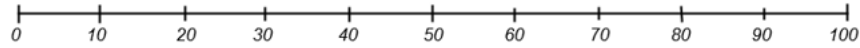
1. I am able to decide when to introduce opioids



2. I am able to define breakthrough pain



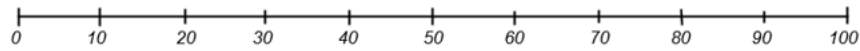
3. I am able to define incident pain



Not very
confident

Very
confident

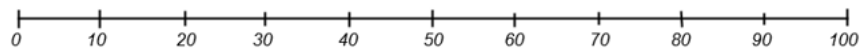
4. I know how to treat opioid toxicity



Not very
confident

Very
confident

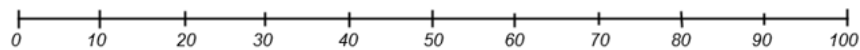
5. I know when to use oxycodone instead of morphine



Not very
confident

Very
confident

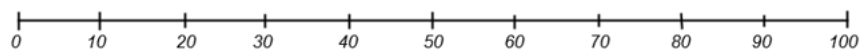
6. I know when to use fentanyl instead of morphine



Not very
confident

Very
confident

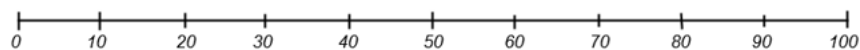
7. I understand the indications for dexamethasone in palliative care settings



Not very
confident

Very
confident

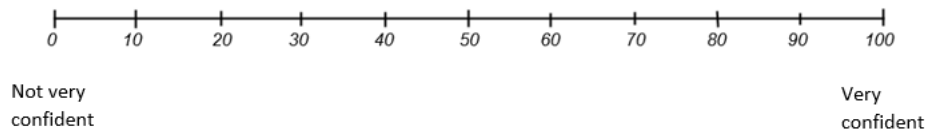
8. I know how to dose dexamethasone according to the clinical scenario



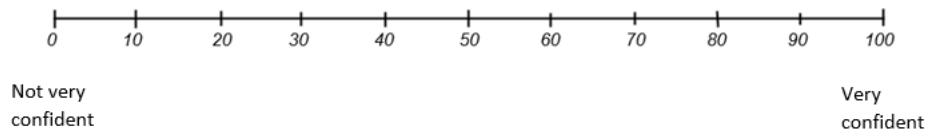
Not very
confident

Very
confident

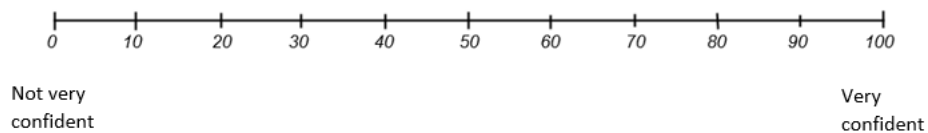
9. I understand the principles of using dexamethasone in the palliative patient



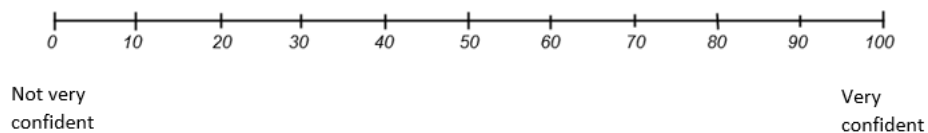
10. I know how to use adjuvant treatments for pain management



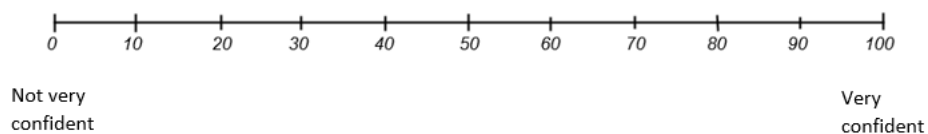
11. I know what anti-emetic to choose in a palliative patient



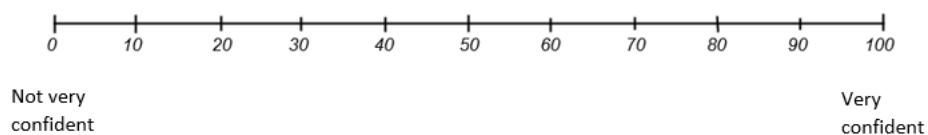
12. I know how to define constipation



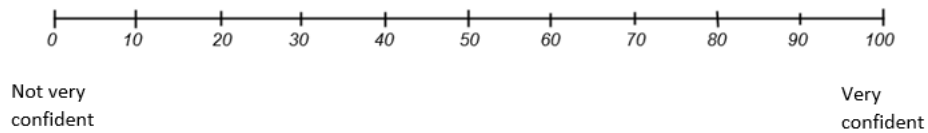
13. I know how laxatives work



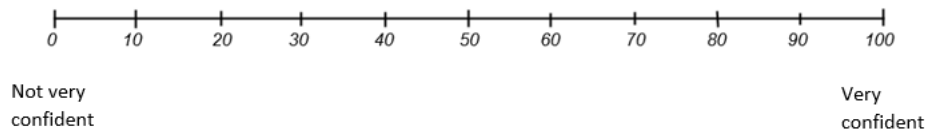
14. I am able to use opioids in breathlessness



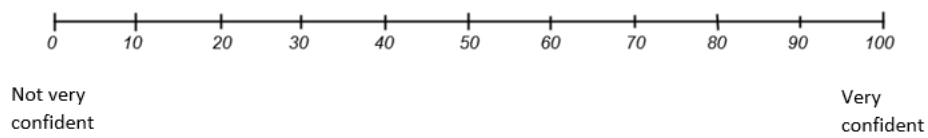
15. I know when oxygen is helpful for breathlessness



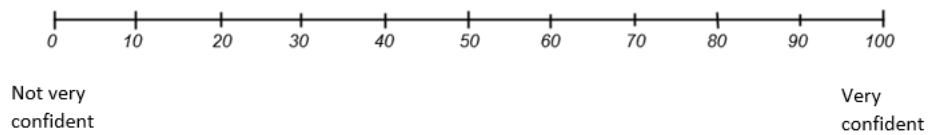
16. I am able to diagnose delirium



17. I know how to treat delirium



18. I know how to define palliative sedation therapy



GP Workshop Series

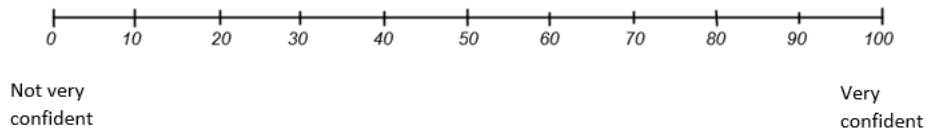
Workshop Two

Master Class in Symptom Management

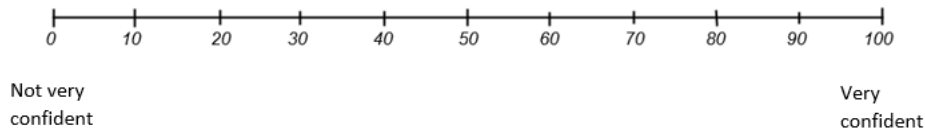
POST-WORKSHOP QUESTIONNAIRE

Rate your confidence on the following scale by circling a number on the line

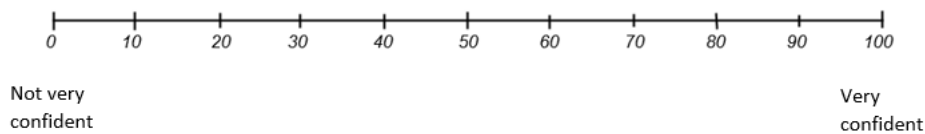
1. I am able to decide when to introduce opioids



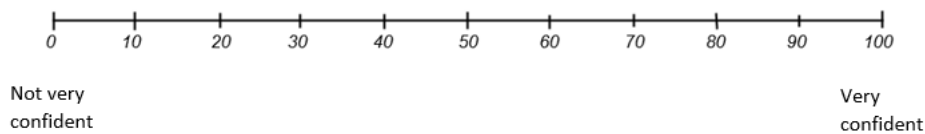
2. I am able to define breakthrough pain



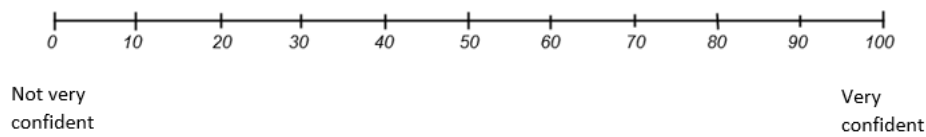
3. I am able to define incident pain



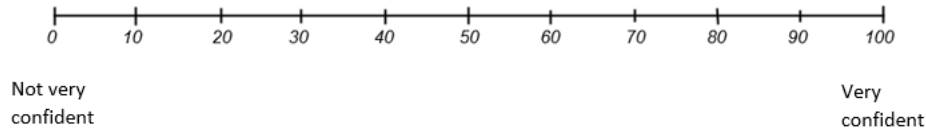
4. I know how to treat opioid toxicity



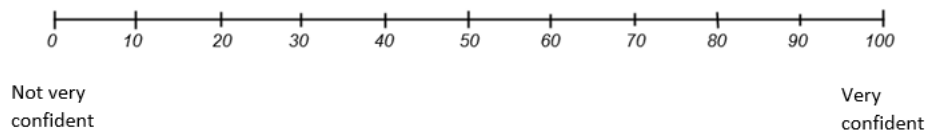
5. I know when to use oxycodone instead of morphine



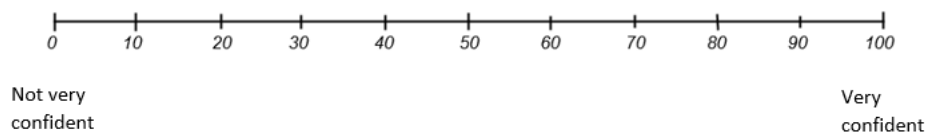
6. I know when to use fentanyl instead of morphine



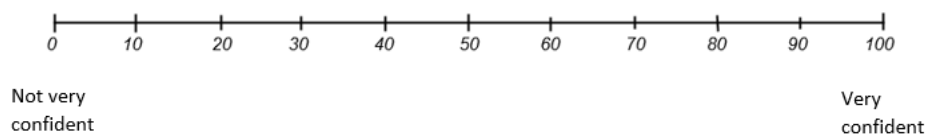
7. I understand the indications for dexamethasone in palliative care settings



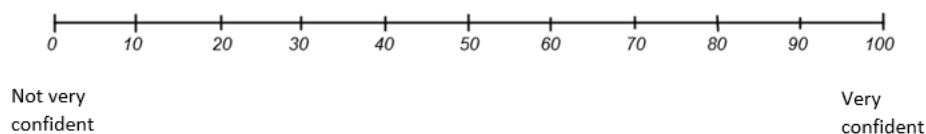
8. I know how to dose dexamethasone according to the clinical scenario



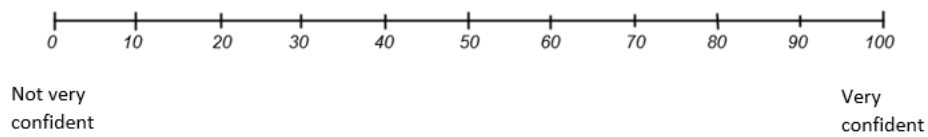
9. I understand the principles of using dexamethasone in the palliative patient



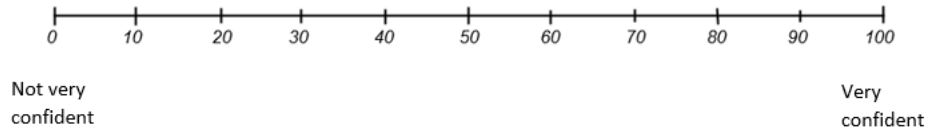
10. I know how to use adjuvant treatments for pain management



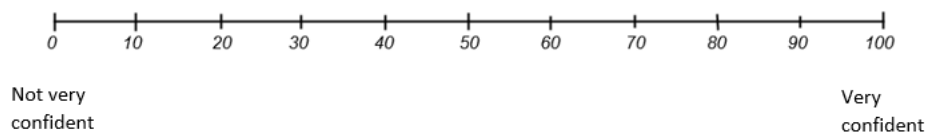
11. I know what anti-emetic to choose in a palliative patient



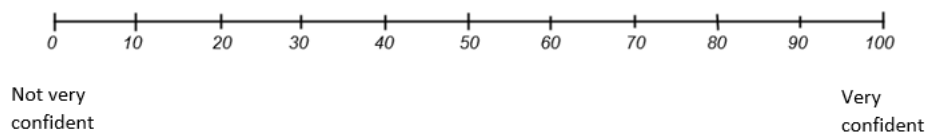
12. I know how to define constipation



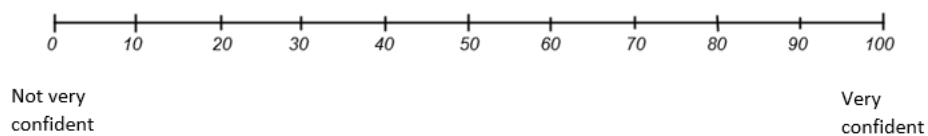
13. I know how laxatives work



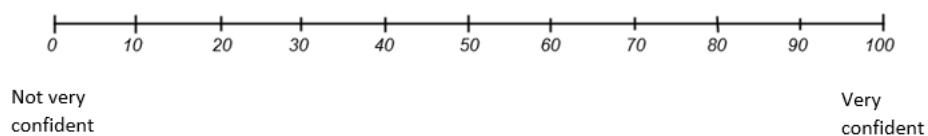
14. I am able to use opioids in breathlessness



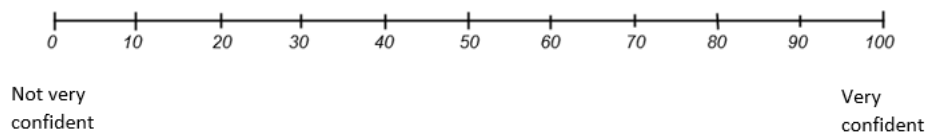
15. I know when oxygen is helpful for breathlessness



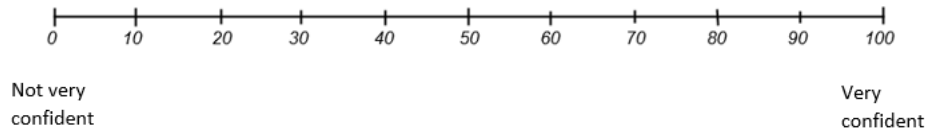
16. I am able to diagnose delirium



17. I know how to treat delirium



18. I know how to define palliative sedation therapy



What aspects of the Master Class did you find helpful for your learning?

Was there anything that hindered your learning?

Was there anything that could have been done better?

Thank you

Supplementary materials S3. Questionnaire Workshop Three

GP Master Class Series

Workshop Three: *Master Class in Non-Malignant Disease*

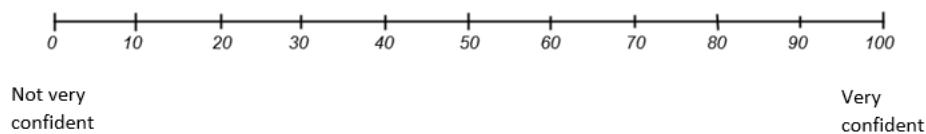
PRE-WORKSHOP QUESTIONNAIRE

Section One: *Please tick one box each row*

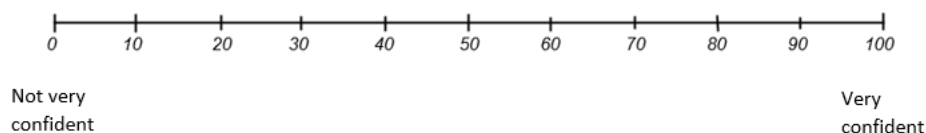
Gender?	<input type="radio"/> Male	<input type="radio"/> Female			
Age group?	<input type="radio"/> 20-29	<input type="radio"/> 30-39	<input type="radio"/> 40-49	<input type="radio"/> 50-59	<input type="radio"/> 60 – 69
Role?	<input type="radio"/> GP	<input type="radio"/> NP	<input type="radio"/> Trainee	<input type="radio"/> Other: _____	
Years of practice?	<input type="radio"/> 1 - 5	<input type="radio"/> 6 - 10	<input type="radio"/> 11 - 15	<input type="radio"/> 15+	
Approximately how many palliative patients per year?	<input type="radio"/> 1 - 5	<input type="radio"/> 6 - 10	<input type="radio"/> 10+		

Section Two: *Rate your confidence on the following scale by circling a number on the line*

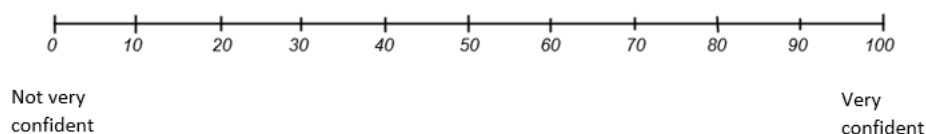
1. I know when to transition patients with COPD to a palliative approach



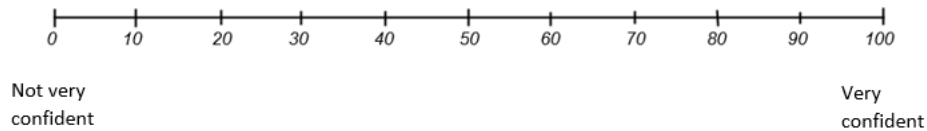
2. I am able to explain what palliative care is to a patient with end stage COPD



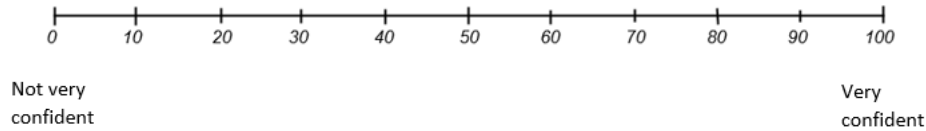
3. I know how to use opioids for breathlessness in COPD



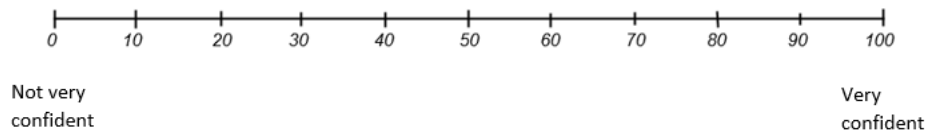
4. I am able to use benzodiazepines for breathlessness in COPD



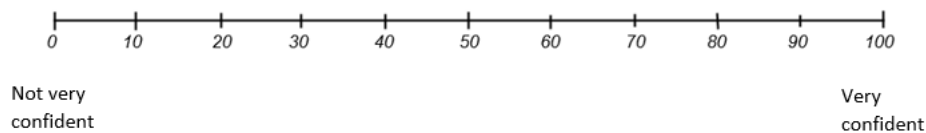
5. I am able to manage breathlessness in end-stage heart failure



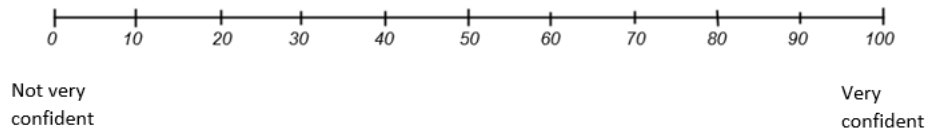
6. I am able to discuss deactivating implantable defibrillators



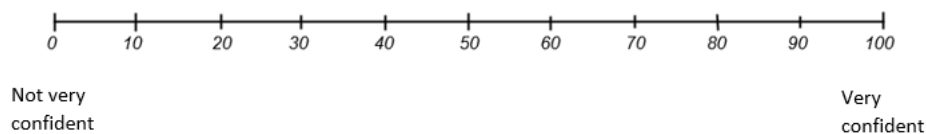
7. I know how to recognise respiratory failure in a patient with neurological disease



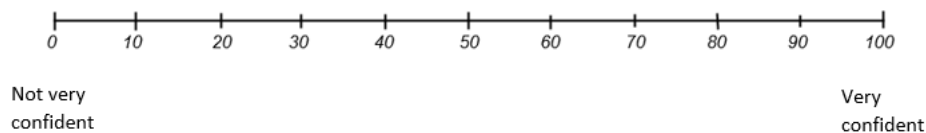
8. I know the symptoms of end stage renal disease



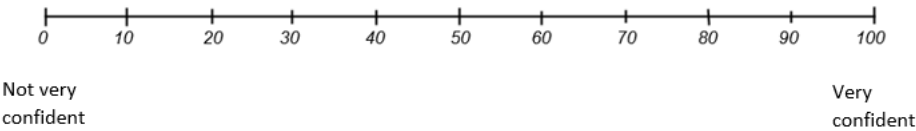
9. I am able to use opioids in a patient with end-stage renal function



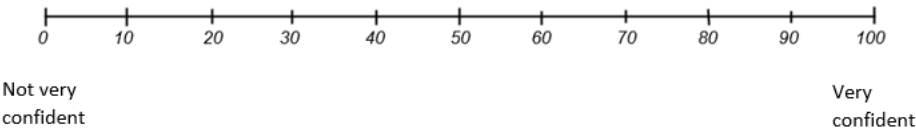
10. I am able to treat neuropathic pain in a patient with end-stage kidney disease



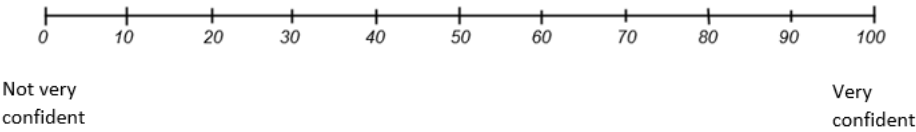
11. I am able to manage a patient in the community who is withdrawing off dialysis



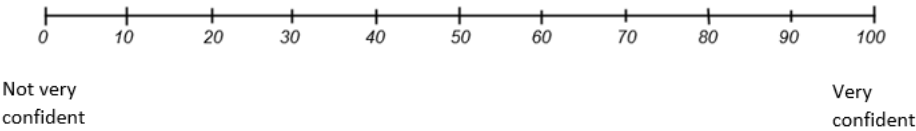
12. I know the common types of dementia and their typical characteristics



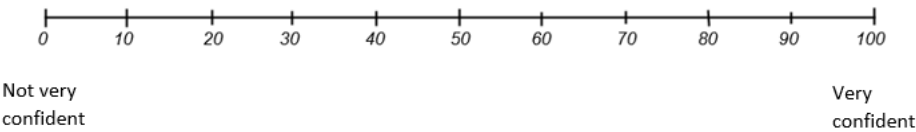
13. I am able to diagnose dying in someone with end-stage dementia



14. I am able to manage pain in end-stage dementia



15. I am able to manage terminal delirium in end-stage dementia



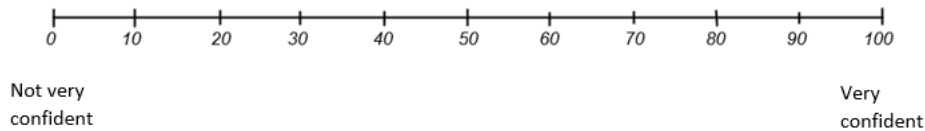
GP Master Class Series

Workshop Three: *Master Class in Non-Malignant Disease*

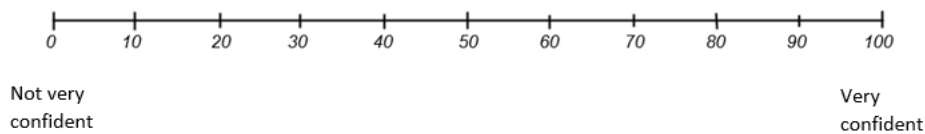
POST-WORKSHOP QUESTIONNAIRE

Rate your confidence on the following scale by circling a number on the line

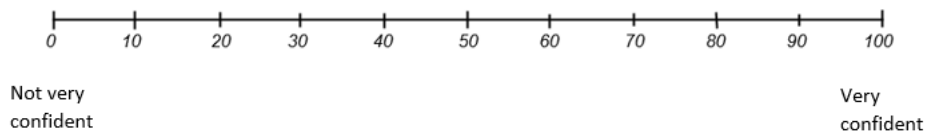
1. I know when to transition patients with COPD to a palliative approach



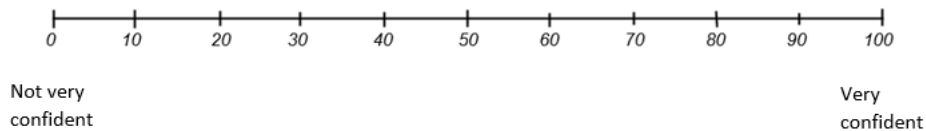
2. I am able to explain what palliative care is to a patient with end stage COPD



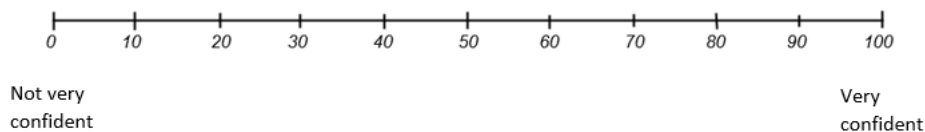
3. I know how to use opioids for breathlessness in COPD



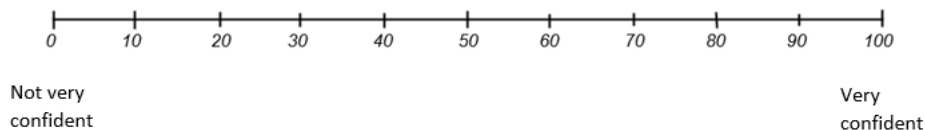
4. I know how to use benzodiazepines for breathlessness in COPD



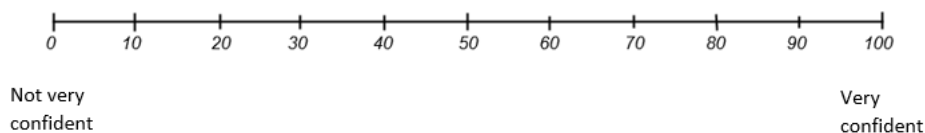
5. I am able to manage breathlessness in end-stage heart failure



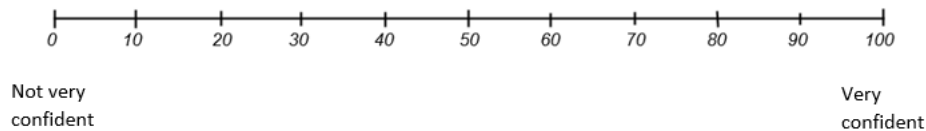
6. I am able to discuss deactivating implantable defibrillators



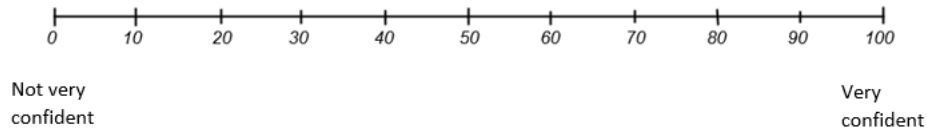
7. I know how to recognise respiratory failure in a patient with neurological disease



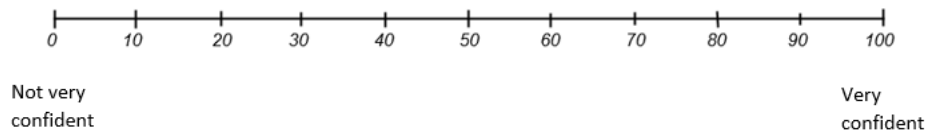
8. I know the symptoms of end stage renal disease



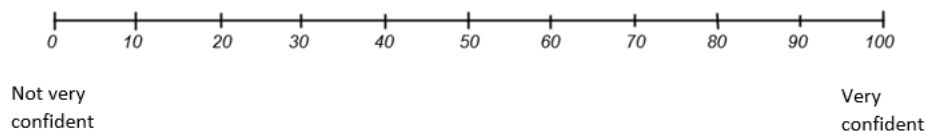
9. I know how to use opioids in a patient with end-stage renal function



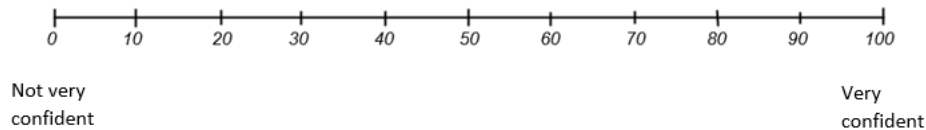
10. I am able to treat neuropathic pain in a patient with end-stage kidney disease



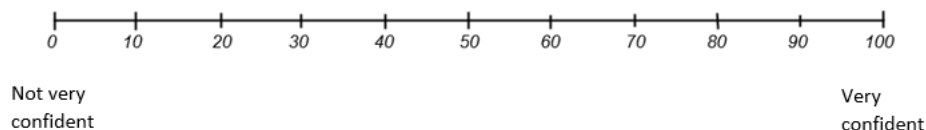
11. I am able to manage a patient in the community who is withdrawing off dialysis



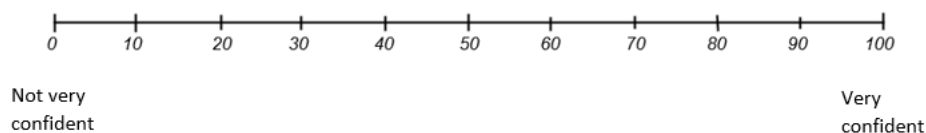
12. I know the common types of dementia and their typical characteristics



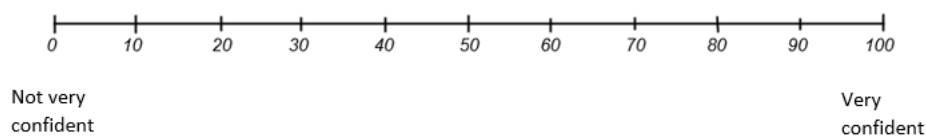
13. I am able to diagnose dying in someone with end-stage dementia



14. I am able to manage pain in end-stage dementia



15. I am able to manage terminal delirium in end-stage dementia



What aspects of the Master Class did you find helpful for your learning?

Was there anything that hindered your learning?

Was there anything that could have been done better?

Thank you

Supplementary materials S4. Questionnaire Workshop Four

GP Master Class Series

Workshop Four: *Master Class in Food/Fluids, Ethics and Emergencies*

PRE-WORKSHOP QUESTIONNAIRE

Section One

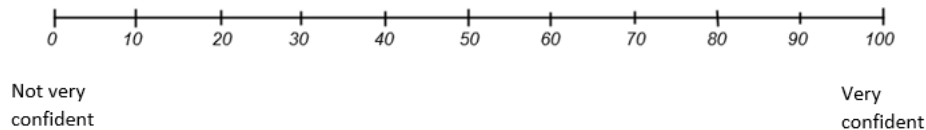
Please circle one each line

Male				Female	
Age	20-29	30-39	40-49	50-59	60-69
Role	Nurse	GP	Other		
Years as a GP/nurse	1-5	6-10	11-15	15+	
Palliative patients per year	1-5	5-10	10+		

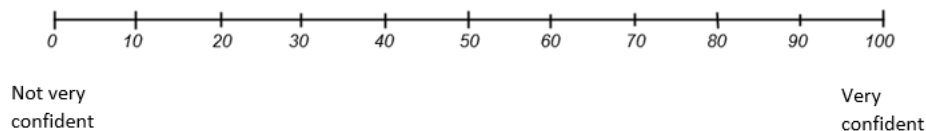
Section Two

Rate your confidence on the following scale by circling a number on the line

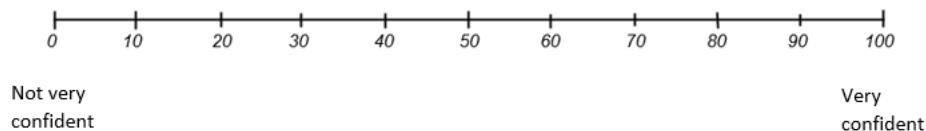
1. I can explain the anorexia/cachexia syndrome of advanced illness to patients



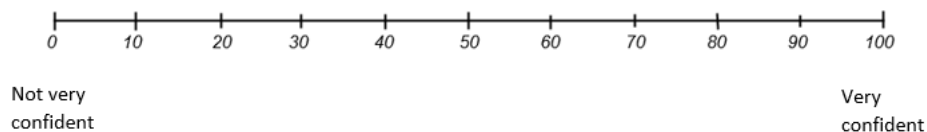
2. I know how to use nutritional supplements in a palliative patient



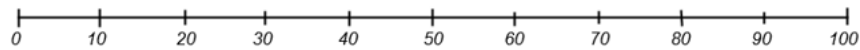
3. I know how to recognise malabsorption in a patient



4. I feel able to discuss artificial hydration with a patient at the end of life



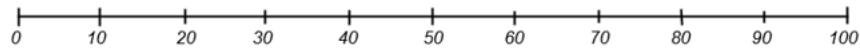
5. I am able to diagnose a malignant spinal cord compression



Not very
confident

Very
confident

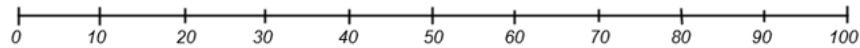
6. I know the treatment options for a spinal cord compression



Not very
confident

Very
confident

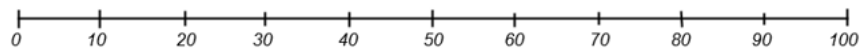
7. I know the signs and symptoms of hypercalcaemia



Not very
confident

Very
confident

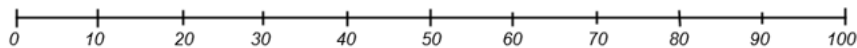
8. I am able to organise a home-based plan for a patient that has a high risk of a catastrophic bleed



Not very
confident

Very
confident

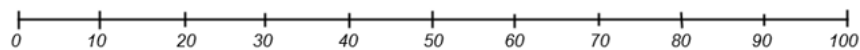
9. I am able to recognise the signs and symptoms of a superior vena cava obstruction



Not very
confident

Very
confident

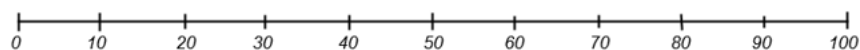
10. I am able to make a seizure management plan with a family/whanau of a patient at risk



Not very
confident

Very
confident

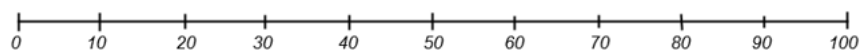
11. I am able to make a decision with a patient and family/whanau regarding medical futility of a treatment



Not very
confident

Very
confident

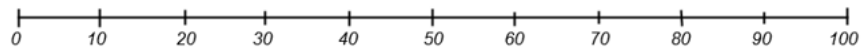
12. I am able to have a goal of care discussion with patients and family/whanau



Not very
confident

Very
confident

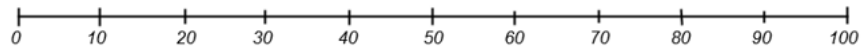
13. I understand the legal rights and responsibilities of an enduring power of attorney



Not very
confident

Very
confident

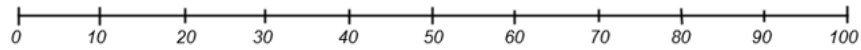
14. I am able to help a patient complete an advance care plan



Not very
confident

Very
confident

15. I am able to define palliative sedation therapy



Not very
confident

Very
confident

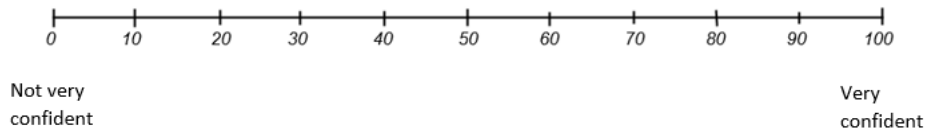
GP Master Class Series

Workshop Four: *Master Class in Food/Fluids, Ethics and Emergencies*

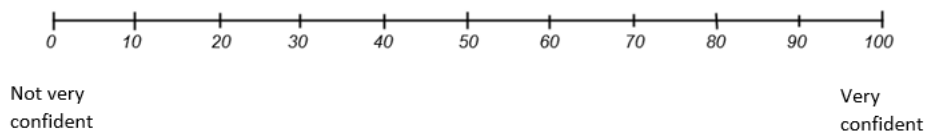
POST-WORKSHOP QUESTIONNAIRE

Rate your confidence on the following scale by circling a number on the line

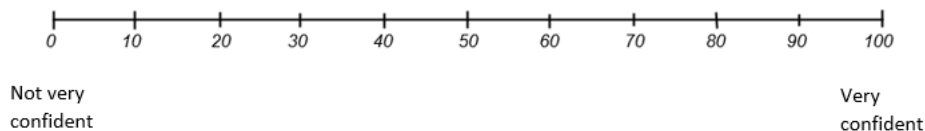
1. I can explain the anorexia/cachexia syndrome of advanced illness to patients



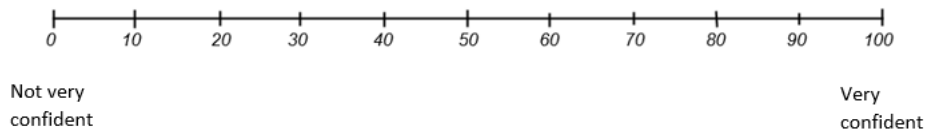
2. I know how to use nutritional supplements in a palliative patient



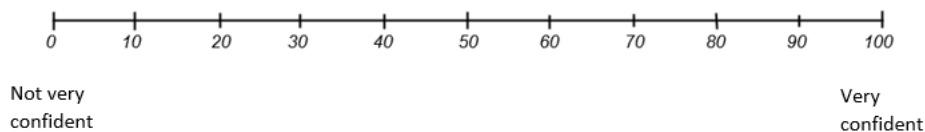
3. I know how to recognise malabsorption in a patient



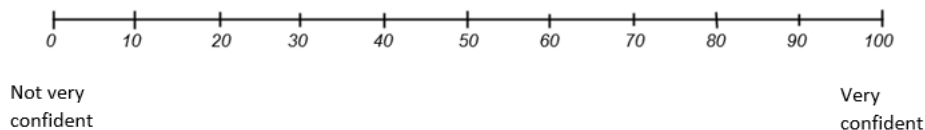
4. I feel able to discuss artificial hydration with a patient at the end of life



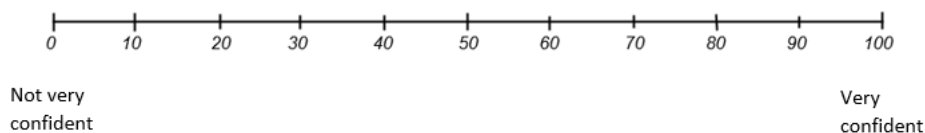
5. I am able to diagnose a malignant spinal cord compression



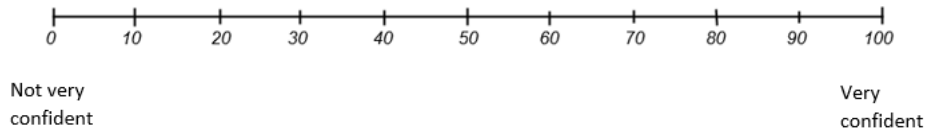
6. I know the treatment options for a spinal cord compression



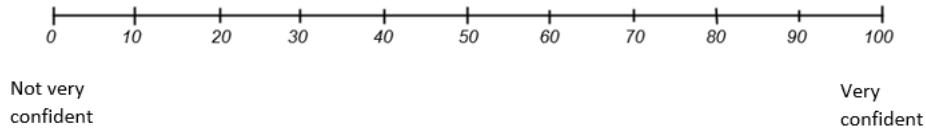
7. I know the signs and symptoms of hypercalcaemia



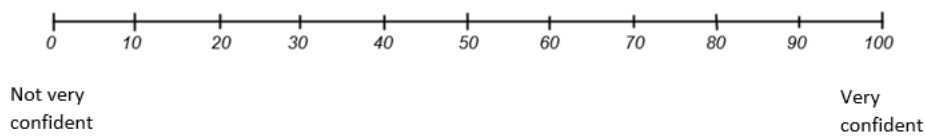
- 8. I am able to organise a home-based plan for a patient that has a high risk of a catastrophic bleed**



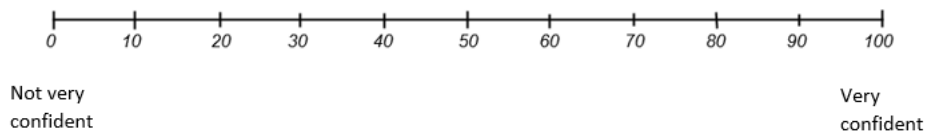
- 9. I am able to recognise the signs and symptoms of a superior vena cava obstruction**



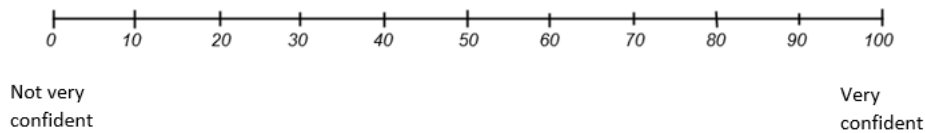
- 10. I am able to make a seizure management plan with a family/whanau of a patient at risk**



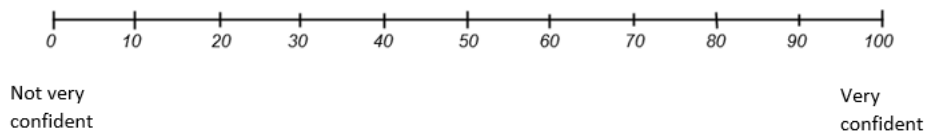
- 11. I am able to make a decision with a patient and family/whanau regarding medical futility of a treatment**



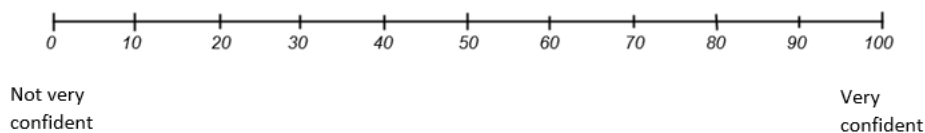
- 12. I am able to have a goal of care discussion with patients and family/whanau**



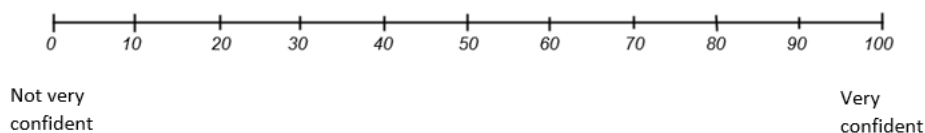
- 13. I understand the legal rights and responsibilities of an enduring power of attorney**



- 14. I am able to help a patient complete an advance care plan**



- 15. I am able to define palliative sedation therapy**



What aspects of the Master Class did you find helpful for your learning?

Was there anything that hindered your learning?

Was there anything that could have been done better?

Thank you

Supplementary materials S5. Post-interventional survey

Palliative Care GP Masterclasses Research Project

Post-interventional Survey

Back in 2018 and 2019 you participated in the Palliative Care GP Masterclasses. At the time we asked you to complete pre- and post-class questionnaires looking at changing confidence levels of various learning objectives.

We are now interested in finding out how much of the Masterclass content you use in everyday practice. We would like to know if you have been able to apply the learnings to your mahi. The following survey will only take 5 mins of your time and will help us shape future educational interventions.

Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether or not to participate. If you decide to participate we thank you. If you decide not to take part there will be no disadvantage to you and we thank you for considering our request. Please click on the link below to start complete the survey.

There will not be any collection of information that will identify you. The results may be published but it will be anonymised and in a statistical form. Only the researchers will have access to the data. The data collected will be securely stored in such a way that only those mentioned below will be able to gain access to it. Data obtained as a result of the research will be retained for at least 5 years in secure storage.

If you have any questions about this project, either now or in the future, please feel free to contact:-

Investigators- *Dr Amanda Landers, Senior Clinical Lecturer, University of Otago.*

Raewyn Jenkins, Clinical Nurse Educator, Nurse Maude Association

Dr Persijn Honkoop, GP, Southlink Care

Contact details Amanda.Landers@otago.ac.nz if you have any queries.

This study has been approved by the Nurse Maude Ethics Committee.

What is your gender?

Male
Female
Non-binary
Unspecified

Please indicate your age range (years)

20-29
30-30
40-49
50-59
60-69
69 plus

What is your current role?

General Practitioner
Nurse Practitioner
Other- free text

Please indicate your years in your role?

1-5
6-10
11-15
15 plus

How many palliative patients per month have you seen in the last year?

0
1-5
6-10
10+

Using this rating scale, circle the rating that best describes your current level of on-the-job knowledge and confidence to apply each listed behaviour to your palliative care patients that was covered during the Masterclasses. If you did not attend all 4 of the classes just focus on the learning that was covered in the ones you did attend and otherwise circle NA.

1= little or no application
2= mild degree of application
3= moderate degree of application
4= strong degree of application
5= very strong degree of application, and desire to help others do the same

Using classifications of pain	1	2	3	4	5	NA
Prescribing breakthrough pain options	1	2	3	4	5	NA
Doing opioid rotations	1	2	3	4	5	NA
Explaining addiction to opioids with patients	1	2	3	4	5	NA
Using correct opioids in a palliative care patient	1	2	3	4	5	NA
Avoiding particular opioids in certain scenarios	1	2	3	4	5	NA
Titrating fentanyl in a palliative patient	1	2	3	4	5	NA
Explaining incident pain to a patient	1	2	3	4	5	NA

Recognising and treating opioid toxicity	1	2	3	4	5	NA
Using opioids in the last days of life	1	2	3	4	5	NA
Understanding indications for dexamethasone in advanced cancer	1	2	3	4	5	NA
Titrating dexamethasone in a palliative patient	1	2	3	4	5	NA
Understanding use of adjuvant analgesics	1	2	3	4	5	NA
Using opioids effectively in breathlessness	1	2	3	4	5	NA
Using benzodiazepines in breathlessness	1	2	3	4	5	NA
Explaining the use of oxygen in breathlessness	1	2	3	4	5	NA
Managing constipation in a palliative patient	1	2	3	4	5	NA
Managing delirium in a palliative patient	1	2	3	4	5	NA
Suggesting non-pharmacological interventions for severe breathlessness	1	2	3	4	5	NA
Ability to discuss dialysis decisions with patients	1	2	3	4	5	NA
Recognising end-stage dementia	1	2	3	4	5	NA
Withdrawing medication in someone with dementia at end-of-life	1	2	3	4	5	NA

Explaining decreasing food and fluid consumption at the end of life	1	2	3	4	5	NA
Managing malignant spinal cord compression	1	2	3	4	5	NA
Managing malignant hypercalcaemia	1	2	3	4	5	NA
Managing catastrophic haemorrhage	1	2	3	4	5	NA
Managing superior vena caval obstruction	1	2	3	4	5	NA
Managing seizures in a palliative patient	1	2	3	4	5	NA
Discussing medical goals of care with patients	1	2	3	4	5	NA
Having advance care planning conversations	1	2	3	4	5	NA
Discussing palliative sedation therapy with a patient	1	2	3	4	5	NA

What topics would you like to see covered in the palliative care master classes that were not addressed?

Would you be interested in a short online module for continuing medical education in palliative care?

Supplementary materials S6. Complete results from the 4 Workshops

LEARNING OBJECTIVES	PRE- WORKSHOP (SD)	POST- WORKSHOP (SD)	MEAN CHANGE (SD)	OVERALL EFFECT SIZE
WORKSHOP ONE- OPIOIDS				
Opioid-induced neurotoxicity	48 (22)	83 (11)	35 (24)***	
Disadvantages of methadone	48 (25)	83 (10)	34 (30)***	
Converting oral to subcutaneous	44 (34)	79 (20)	31 (36)**	
Classify pain	57 (14)	85 (7)	29 (14)***	
Titrating fentanyl patches	48 (30)	78 (14)	29 (30)**	
Define pain	61 (18)	85 (12)	23 (20)***	
How opioids work	64 (9)	83 (10)	19 (10)***	
Adverse effects of opioids	71 (18)	88 (9)	16 (18)**	
Opioid toxicity	61 (23)	79 (14)	14 (33)*	
Tolerance and addiction	68 (18)	89 (16)	21 (21)**	
Initiating morphine	73 (23)	90 (8)	16 (19)**	
Avoiding morphine	58 (23)	78 (17)	19 (32)*	
Differences between oxycodone and morphine	58 (26)	81 (14)	25 (29)**	
Oxycodone use	51 (24)	76 (11)	27 (23)***	
Differences between morphine and fentanyl	63 (25)	83 (11)	19 (25)**	
Managing incident pain	55 (24)	81 (12)	23 (22)**	
Pain issues on opioid substitution	32 (27)	57 (21)	26 (34)**	
Continuous subcutaneous infusions	69 (30)	75 (24)	9 (32)	
Overall mean change (range)				23.1(9-35)
Overall effect size				0.98
WORKSHOP TWO- SYMPTOM MANAGEMENT				
Dosing dexamethasone	42 (17)	83 (12)	42 (19)***	
Palliative sedation therapy	45 (26)	87 (8)	42 (29)***	
Indications for dexamethasone	56 (15)	88 (8)	32 (17)***	
Principles of dexamethasone	56 (16)	85 (11)	29 (19)***	
Treating delirium	53 (21)	81 (10)	28 (20)***	
Introducing opioids	73 (13)	85 (10)	12 (15)*	
Defining breakthrough pain	78 (11)	90 (7)	12 (13)**	
Defining incident pain	62 (30)	90 (8)	28 (33)*	
Treat opioid toxicity	58 (19)	90 (9)	25 (33)***	
Using oxycodone	63 (22)	89 (13)	13 (26)**	
Using fentanyl	60 (22)	87 (9)	27 (25)**	
Adjuvant pain therapies	61 (12)	85 (11)	25 (15)***	
Choosing anti-emetics	58 (16)	78 (19)	19 (27)*	
Defining constipation	65 (16)	87 (10)	22 (18)**	
Laxative use	68 (18)	87 (13)	18 (22)**	
Using opioids for breathlessness	75 (8)	88 (12)	13 (14)**	
Oxygen for breathlessness	62 (11)	85 (13)	23 (14)***	
Diagnosing delirium	64 (10)	85 (8)	21 (13)***	

Overall mean change (range)	24.6(12-42)
Overall effect size	1.82

WORKSHOP THREE- NON-MALIGNANT PALLIATIVE CARE

Discussing deactivating defibrillators	19 (26)	73 (16)	54 (29)***
Discussing withdrawal dialysis	24 (23)	58 (20)	34 (26)***
Respiratory failure in neuro disease	37 (18)	69 (13)	32 (21)***
Opioids in renal failure	49 (18)	75 (11)	27 (20)***
Terminal delirium in dementia	48 (21)	74 (14)	26 (21)***
Transition COPD to palliative care	50 (22)	73 (13)	23 (18)***
Explain PC to COPD patient	63 (20)	81 (13)	17 (19)**
Opioids for breathlessness in COPD	59 (20)	76 (15)	17 (16)***
Benzodiazepine for breathlessness in COPD	60 (19)	76 (10)	16 (16)**
Breathlessness in Congestive heart failure	54 (15)	79 (8)	25 (12)***
Symptoms of End-stage renal failure	53 (20)	74 (13)	21 (17)***
Neuropathic pain in renal failure	48 (19)	67 (17)	19 (19)**
Types of dementia	54 (18)	77 (12)	23 (17)***
Dying of dementia	59 (16)	77 (12)	18 (17)**
Pain in end-stage dementia	52 (23)	74 (12)	20 (19)***
Overall mean change (range)	24.8(16-54)		
Overall effect size	1.49		

WORKSHOP FOUR- FOOD AND FLUIDS, EMERGENCIES AND ETHICS

Explain anorexia/cachexia	48 (26)	87 (8)	43 (25)***
Plan for catastrophic bleed	38 (22)	79 (13)	42 (21)***
Use of nutritionals	45 (16)	83 (16)	41 (17)***
Treating spinal cord compression	51 (30)	86 (8)	40 (23)***
Recognising SVC obstruction	51 (29)	87 (8)	40 (24)***
Recognising malabsorption	55 (23)	82 (12)	31 (24)**
Discussing artificial hydration	62 (16)	88 (8)	28 (14)***
Discussing spinal cord compression	54 (26)	82 (14)	31 (19)***
Recognising hypercalcaemia	70 (20)	88 (10)	10 (39)**
Seizure management plan	49 (17)	80 (12)	34 (20)***
Deciding medical futility	75 (18)	85 (8)	12 (14)*
Goal of care discussion	76 (15)	86 (7)	11 (10)**
Understanding Enduring Power of Attorney	72 (21)	89 (9)	19 (18)**
Completing an advance care plan	77 (21)	86 (12)	10 (15)
Defining palliative sedation therapy	52 (25)	84 (10)	35 (28)***
Overall mean change (range)	28.5(10-43)		
Overall effect size	1.65		

Learning objectives from each workshop as per the mean change. The p values <0.05=*, <0.01=**, <0.001***