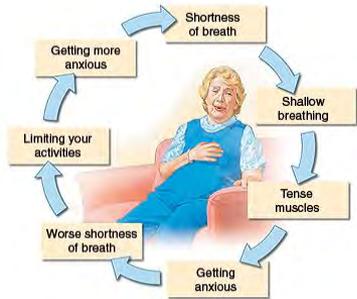
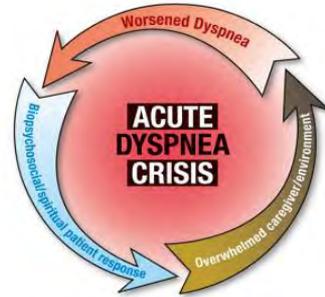




Dyspnée en fin de vie

Anne-Claire Latiers

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22^e CONGRÈS DE PNEUMOLOGIE DE LANGUE FRANÇAISE **ONCOLOGIE THORACIQUE - LE POUMON ET SON ENVIRONNEMENT**

LYON
CENTRE
DES CONGRÈS
26 | 27 | 28
Janvier 2018

Déclaration de liens d'intérêts

J'ai actuellement, ou j'ai eu au cours des trois dernières années, une affiliation ou des intérêts financiers ou intérêts de tout ordre avec les sociétés commerciales suivantes **en lien avec la santé**.

Aucun lien d'intérêts

L'arsenal médical de lutte contre le cancer

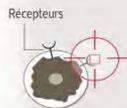
1 TRAITEMENTS CONVENTIONNELS

CHIRURGIE
Ablation de la tumeur et parfois de ses extensions (métastases)

RADIODTHÉRAPIE
Utilisation des radiations ionisantes pour détruire directement les cellules cancéreuses en cassant leur ADN

CHIMIOTHÉRAPIE
Traitement médicamenteux visant à détruire les cellules en division rapide dans l'organisme

2 THÉRAPIES CIBLÉES



Viser les cellules cancéreuses porteuses de mutations spécifiques en ciblant leurs récepteurs.

Ces techniques visent les cellules cancéreuses, mais détruisent aussi des cellules saines

3 IMMUNOTHÉRAPIE

Reactivation du système immunitaire contre les cellules cancéreuses

DOUBLE AVANTAGE

Pas d'hospitalisation et moins d'effets secondaires que la chimiothérapie.



Activation des lymphocytes (cellules du système immunitaire)

Anticorps

Destruction des cellules cancéreuses



**JE SUIS
CONVAINCU**



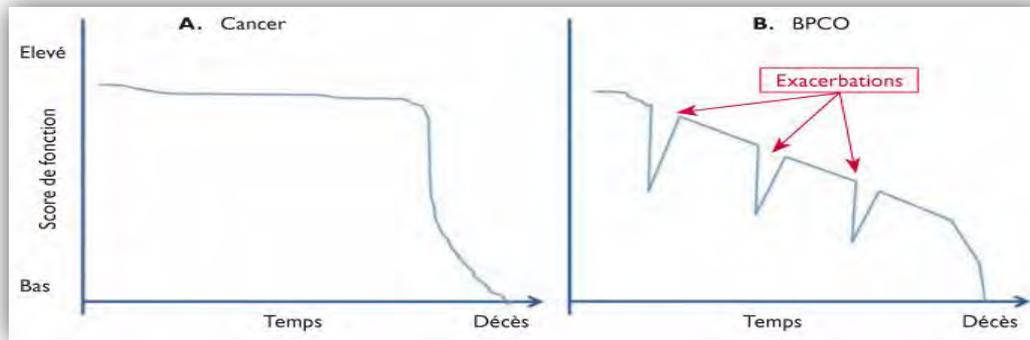
Janssens et al 2015 et 2016, Temel et al 2017

Introduction – Cancer du poumon/BPCO et dyspnée

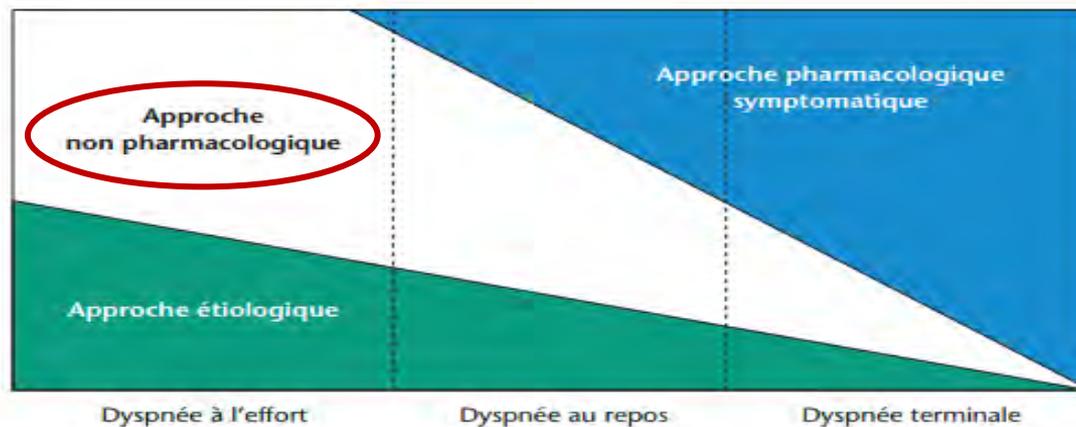
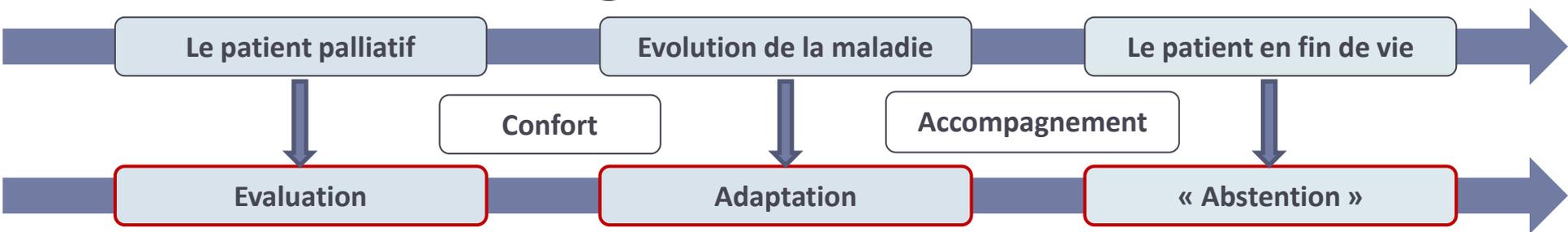
- **Expériences** similaires
- **Réactions** différentes :

Adaptation du BPCO avec meilleur statut fonctionnel (Weingaertner et al 2014)

Angoisse pour le patient avec un cancer du poumon (Dunger 2015)



Introduction – Timing



Introduction - Objectifs

Le patient palliatif

Evolution de la maladie

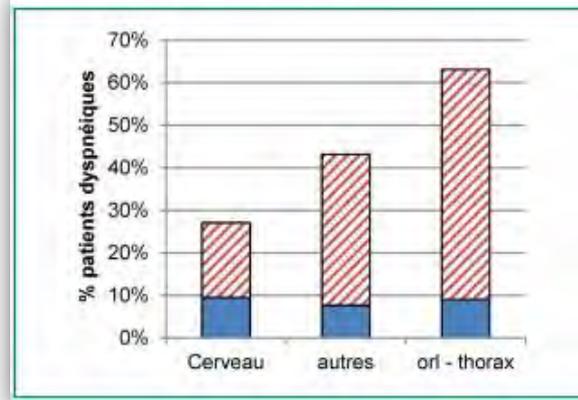
Le patient en fin de vie

- Dyspnée **précoce**
- Diagnostic et traitement **étiologique**

Dyspnée « totale »
Multidimensionnelle

- Dyspnée **terminale**
- Traitement **symptomatique**

Sous estimée
Qualité de vie



Evaluation – Education - Challenge

Evaluation

Le patient palliatif

Evolution de la maladie

Le patient en fin de vie

Description par le patient

= seul indicateur fiable de l'intensité de la dyspnée

Malher et al 2010, ATS 2012

! Pas de corrélation systématique entre la présence,
l'intensité de la dyspnée et l'existence des signes cliniques

Maddocks et al 2014, Morris et al 2015

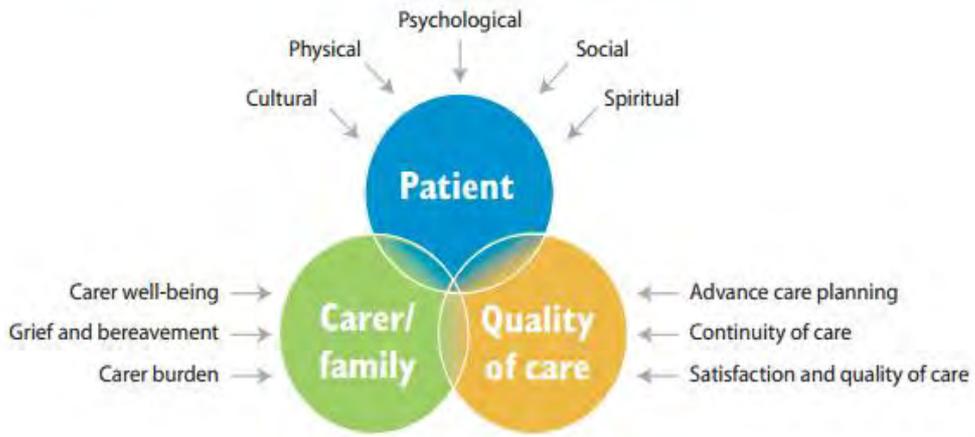
Evaluation - Aspect multidimensionnel

Le patient palliatif

Evolution de la maladie

Le patient en fin de vie

Example 2.3 Domains and dimensions of outcome measures in palliative care (adapted from Mularski et al 2007⁹)



Outcome Measurement in Palliative Care
The Essentials

Bausewein C, Daveson B, Benalia H, Simon ST, Higginson IJ

2008

Outcome measure	Number of items	Completion time	Additional comments
Palliative care Outcome Scale (POS) ⁵	10 items on physical symptoms, emotional, psychological and spiritual needs, provision of information and support 1 open question on main problems	mean time 6.9 min (patients) and 5.7 min (staff); repeated assessments of patients and staff mean time < 4 min ⁵	scores from 0 ('no effect') to 4 ('overwhelming'); patient, staff and carer version; widely used palliative care measure freely available after registration
POS-S Symptom list	10 symptoms 2 questions about the symptom that affected the patient the most and that has improved the most	few minutes	scores from 0 ('no effect') to 4 ('overwhelming'); additional symptom versions available for other conditions (POS-S MS, POS-S renal); freely available after registration
Distress Thermometer ⁹	overall distress score 20 symptoms, 5 items on practical problems, 4 on family problems, 5 on emotional problems, 2 on spiritual concerns	median length of time 5 min, with 75% taking no more than 10 min ¹⁰	distress score 0-10; other items yes/no
Edmonton Symptom Assessment Scale (ESAS) ⁶	9 symptoms and 1 "other problem"	approximately 5 min ¹¹	each symptom with NRS 0-10 developed to measure the most commonly experienced symptoms in cancer patients; freely available
Memorial Symptom Assessment Scale (MSAS) ¹²	28 physical and 4 psychological symptoms	20-60 min, ¹³ short form < 5 min	measuring presence, frequency, severity and distress of symptoms; short form version available (MSAS-SF); only presence and distress of symptoms; developed for cancer patients but also used in other conditions
Hospital Anxiety and Depression Scale (HADS) ⁷	14 items (7 depression, 7 anxiety)	2-6 min ¹⁴	developed to assess depression and anxiety for people with physical illness; not freely available
EORTC QLQ-C30 ¹⁵	5 functional scales (physical, role, emotional, social, and cognitive), 3 symptom scales (fatigue, nausea/vomiting and pain), a global health status/ QoL scale and six single items (dyspnoea, insomnia, appetite loss, constipation, diarrhoea, and financial difficulties)	first assessment 12 min (SD 7.5 min), second assessment 11 min (SD 6.5 min) ¹⁵	not freely available, widely used in cancer research; modular supplement available for a range of malignancies (lung, breast, gastric, brain etc.)
EORTC QLQ-C15-PAL ¹⁶	pain, physical function (3 items), emotional function (2 items), fatigue (2 items), QoL (1 item), symptoms (6 items)	< 20 min ¹⁷	not freely available, shortened version of the EORTC QLQ-C30 for palliative care patients

Evaluation - Echelles

Le patient palliatif

Evolution de la maladie

Le patient en fin de vie

Echelle de Borg

Appréciation	Degré de perception de la dyspnée
0	absence totale de dyspnée
0,5	dyspnée à peine perceptible
1	dyspnée très légère
2	légère
3	moyenne
4	assez grave
5	grave
6	
7	très grave
8	
9	presque maximale
10	dyspnée maximale

Echelle visuelle analogique (EVA)



Echelle numérique (EN)



Echelle verbale (EV)



Échelles	Sadoul et Polu	MRC	MMRC
1	Essoufflement pour des efforts importants ou au-delà du 2 ^e étage	Essoufflé seulement pour des efforts intenses	0
2	Essoufflé au 1 ^{er} étage, à la marche rapide ou en légère pente	Essoufflé en hâtant le pas ou en légère côte	1
3	Essoufflé à la marche normale en terrain plat	Marche sur terrain plat plus lentement que les sujets de son âge ou doit s'arrêter en marchant à son rythme sur terrain plat	2
4	Essoufflé à la marche lente	Doit s'arrêter après 100 m ou quelques minutes de marche	3
5	Au repos	Trop essoufflé pour sortir de la maison	4

Importance de la situation **initiale**

Evaluation – Patient non communiquant

Le patient palliatif

Evolution de la maladie

Le patient en fin de vie

Tableau 2 Traduction française de la Respiratory Distress Observation Scale pour l'évaluation de la dyspnée, d'après Persichini et al. [33].

French translation of the Respiratory Distress Observation Scale [33].

	Nombre de points			Total
	0	1	2	
Fréquence respiratoire	< 19	19–30	> 30	
Fréquence cardiaque	< 90	91–109	≥ 110	
Agitation : mouvements involontaires	Non	Occasionnels	Fréquents	
Utilisation des muscles respiratoires accessoires : élévation des clavicules à l'inspiration	Non	Légère	Prononcée	
Respiration paradoxale : dépression abdominale à l'inspiration	Non		Oui	
Battement des ailes du nez	Non		Oui	
Râles de fin d'expiration	Non		Oui	
Expression de crainte	Non		Oui	
Yeux grands ouverts				
Muscles du visage contractés				
Froncement des sourcils				
Bouche ouverte				
Dents serrées				
Total ^a				

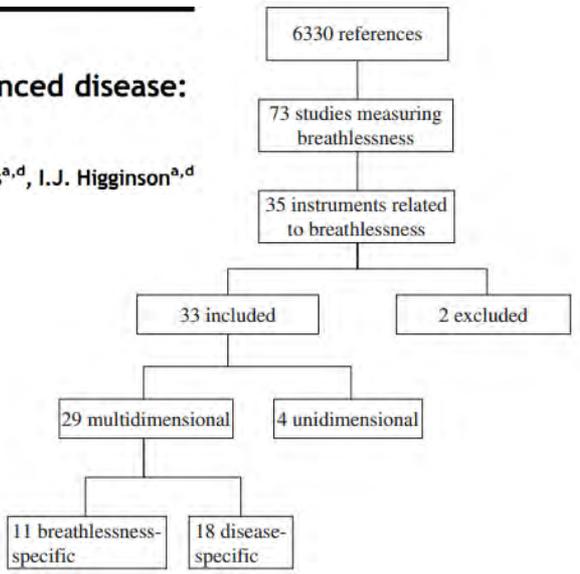
^a Chaque item est coté de 0 à 2 ; l'échelle note donc la dyspnée de 0 à 16, 0 signifiant l'absence de dyspnée, 16 une dyspnée maximale. Un score supérieur à 3 prédirait une dyspnée modérée à sévère [33,34].

Evaluation – Conclusions

REVIEW

Measurement of breathlessness in advanced disease: A systematic review

C. Bausewein^{a,b,d,*}, M. Farquhar^{a,d}, S. Booth^{c,d}, M. Gysels^{a,d}, I.J. Higginson^{a,d}
2007



- VAS ou Echelle de Borg modifiée
- Echelle multidimensionnelle
- Echelle spécifique de dyspnée pour évaluer la sensation de dyspnée et l'impact fonctionnel
- Combiner l'uni-et le multidimensionnel
- Interview qualitative avec analyse des facteurs contextuels

Evidence Table 2a. Characteristics of the selected review, Dorman, 2007² addressing the physical domain (subdomain, dyspnea).

Author, year of systematic review/website	Review focus – NCP domain, tool (and definition if relevant), population, setting	Inclusion criteria	Number of tools included (number of studies)	Years of search (range)
Dorman, 2007 ²	Breathlessness, physical aspects of care	Patient-based scales for either clinical or research purposes and evaluation of at least two psychometric properties	29 (30 studies), 26 included in this report	Up to 2005

NCP=National Consensus Project for Quality Palliative Care Clinical Practice

Interventions non pharmacologiques - Oxygène

Le patient palliatif

Evolution de la maladie

Le patient en fin de vie

Palliative oxygen therapy

- ▶ Patients with cancer or end-stage cardiorespiratory disease who are experiencing intractable breathlessness should not receive treatment with POT if they are non-hypoxaemic or have mild levels of hypoxaemia above current LTOT thresholds ($SpO_2 \geq 92\%$). (Grade A)
- ▶ Patients with cancer or end-stage cardiorespiratory disease who are experiencing intractable breathlessness should receive assessment for a trial of treatment with opiates from an appropriately trained healthcare professional. (Grade A)
- ▶ Patients with cancer or end-stage cardiorespiratory disease who are experiencing intractable breathlessness should receive assessment for a trial of treatment with non-pharmacological treatments including fan therapy from an appropriately trained healthcare professional. (Grade D)

Good practice point

- ▶ POT may on occasion be considered by specialist teams for patients with intractable breathlessness unresponsive to all other modalities of treatment. In those instances, individual formal assessment of the effect of palliative oxygen on reducing breathlessness and improving quality of life should be made. (√)

Interventions – Activité physique

Le patient palliatif

Evolution de la maladie

Le patient en fin de vie

A global detailed assessment of symptom impact or burden can be determined by looking at physical activity level, which can be measured using small, lightweight monitors (48, 49). Level of physical activity relates to level of psychological well-being and quality of life, as patients generally want to maintain their independence for as long as possible. The role of physical activity level as a symptom assessment tool is relatively unexplored. Levels of breathlessness are negatively associated with subjective functional status scores in patients with advanced COPD or lung cancer (50), and objectively measured physical activity levels relate to performance status (51) and quality of life (52) in well-functioning patients with cancer. We, like others (53), would welcome work on *the relationships between physical activity level, breathlessness, and quality of life* (research topic 3).

KEY POINTS

- Patients with advanced chronic obstructive pulmonary disease (COPD) commonly have unmet needs, such as dealing with a high daily symptom burden, emotional distress, needs of family caregivers, and requirements for advance care planning. Each of these can be addressed in the context of a palliative care program.
- Palliative care and pulmonary rehabilitation are both important components of integrated care for patients with chronic respiratory diseases and share some similarities.
- Pulmonary rehabilitation provides the opportunity to introduce palliative care by implementing education about advance care planning as an integral part of its program.



Clinics in Chest Medicine

Volume 35, Issue 2, June 2014, Pages 411–421

Pulmonary Rehabilitation: Role and Advances

Palliative Care and Pulmonary Rehabilitation

Daisy J.A. Janssen, MD, PhD^{a, b},  , James R. McCormick, MD, FCCP^c

→ Amélioration de la **dyspnée** et des **capacités fonctionnelles**

→ Amélioration du **bien-être** et de la **qualité de vie**

Maddocks et al 2014, Putt et al 2015, Tieb et al 2015

Interventions – Mobilisation

Le patient palliatif

Evolution de la maladie

Le patient en fin de vie

- Mobilisation :
 - Positionnement
 - Aides à la marche
 - Stimulation électrique et renforcement des muscles des membres inférieurs

→ Preuves modérées dans la littérature

Physical activity can also be promoted, and breathlessness relieved, by providing appropriate mobility aids (57) or assistive equipment (66). The walking stick, rollator (67), and (more recently) balance-bike-like rollator (68) have improved patients' mobility and functional exercise performance by increasing their ventilatory capacity and/or walking efficiency. Most studies of the use of mobility aids focus on performance in a test of functional exercise capacity (such as the six-minute walk) as the primary outcome, with breathlessness captured only as a secondary outcome and not always at exercise isotime. Another topic that should be examined further is *mobility aids to help with exertional breathlessness* (research topic 10).

Interventions non pharmacologiques - Stratégies

Le patient palliatif

Evolution de la maladie

Le patient en fin de vie

Education des soignants	Education des patients
Compréhension de la dyspnée	Adaptation de l'exercice physique
Gestion de l'anxiété et de la dyspnée	Stratégies cognitives et psychologiques
Gestion des infections	Techniques respiratoires et positionnement
Favoriser l'activité	Air et oxygène
Favoriser la qualité de vie, vision positive	Médications
Anticipation	Stratégies environnementales et autres

The Learning about Breathlessness
Study Programme
Farquhar et al 2017

Self-Management Programme
"Coping Strategies"
Simon et al 2016

Le patient palliatif

Evolution de la maladie

Le patient en fin de vie

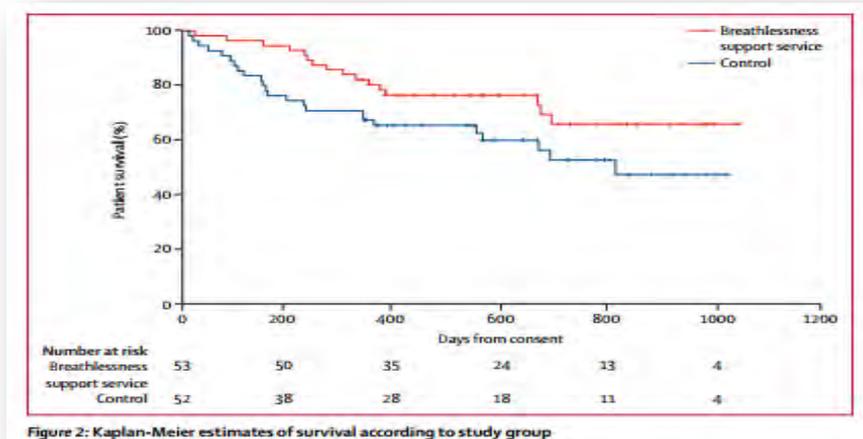
An integrated palliative and respiratory care service for patients with advanced disease and refractory breathlessness: a randomised controlled trial

Irene J Higginson, Claudia Bausewein, Charles C Reilly, Wei Gao, Marjolein Gysels, Mendwas Dzingina, Paul McCrone, Sara Booth, Caroline J Jolley, John Moxham

Lancet Respir Med 2014; 2: 979–87

Pack “Dyspnée”:

- Amélioration de la maîtrise de la dyspnée et de la qualité de vie à 6 semaines
- Tendance positive pour les AVJ et la dépression
- Taux de survie plus élevé (hors cancer)
- Satisfaction des patients



Le patient palliatif

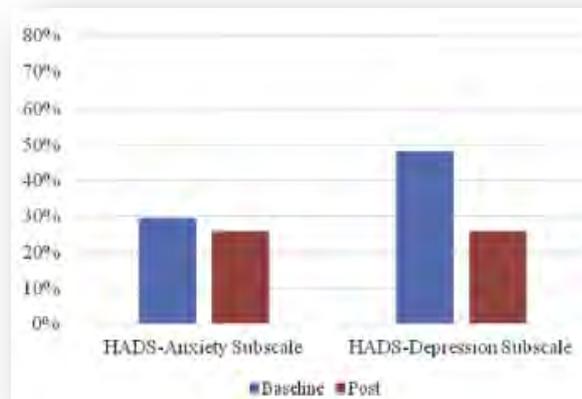
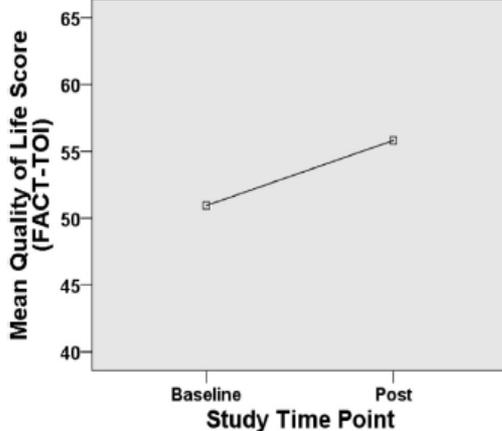
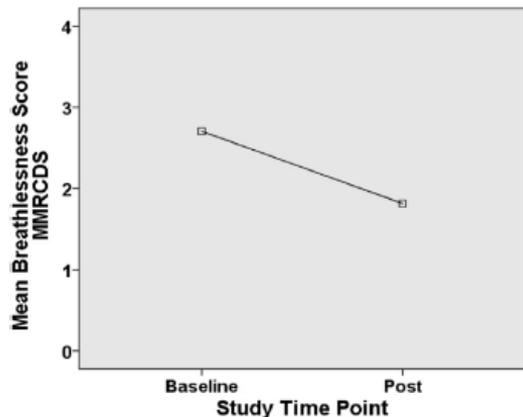
Evolution de la maladie

Le patient en fin de vie

Pilot Study of a Brief Behavioral Intervention for Dyspnea in Patients With Advanced Lung Cancer

Joseph A. Greer, PhD, James J. MacDonald, BA, Jeanne Vaughn, APRN-BC, Elene Viscosi, APRN-BC, Lara Traeger, PhD, Theresa McDonnell, DNP, APRN-BC, William F. Pirl, MD, MPH, and Jennifer S. Temel, MD
Massachusetts General Hospital Cancer Center & Harvard Medical School, Boston, Massachusetts, USA

Session de 30 minutes



Interventions – Entraînement au contrôle respiratoire

Le patient palliatif

Evolution de la maladie

Le patient en fin de vie

Johnson et al. *BMC Medicine* (2015) 13:213
DOI 10.1186/s12916-015-0453-x



RESEARCH ARTICLE

Open Access



A randomised controlled trial of three or one breathing technique training sessions for breathlessness in people with malignant lung disease

Miriam J Johnson^{1*}, Mona Kanaan², Gerry Richardson³, Samantha Nabb⁴, David Torgerson², Anne English^{5,6}, Rachael Barton⁷ and Sara Booth^{8,9}

→ 1 seule session semble suffire

Box 1. Breathing management techniques

Breathing control

The patient sits comfortably with their back supported, the shoulders relaxed, and the upper chest remaining as still as possible. The patient places their hand in front of the lower ribs and upper abdomen, and is asked to breathe in and then out, taking longer than the time taken to breathe in.

Pacing/prioritising

The patient is taught to control their breathing when walking up stairs or on level ground. They are instructed to breathe in time with the steps taken, e.g. breathe in for one step and then breathe out for two. The patient is instructed to find the rhythm that suits them best. Participants define their priorities regarding daily activity which is limited by dyspnoea. Goals are set, and a plan discussed with the therapist on how they may be achieved.

Relaxation

The patient is instructed in progressive muscle relaxation using a standard script and given a study-specific CD to practise at home.

Anxiety management

Patients are instructed to use a tool called The Calming Hand [39]. Patients are asked to recall instructions when they experience anxiety or panic. Each instruction is related to a digit on their hand: thumb, recognise breathing related anxiety; index finger, sigh out; third finger, inhale slowly; fourth finger, exhale slowly; little finger, relax hands, stretch and stop.

The effect of resistance inspiratory muscle training in the management of breathlessness in patients with thoracic malignancies: a feasibility randomised trial

A. Molassiotis • A. Charalambous • P. Taylor •
Z. Stamataki • Y. Summers

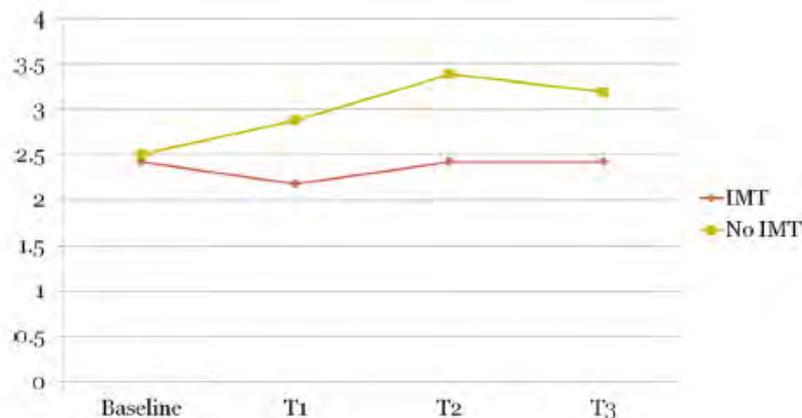


Fig. 2 mBorg score changes over the trial period (diff.=0.96 at T₂; 0.80 at T₃. Minimally important clinical difference=1)

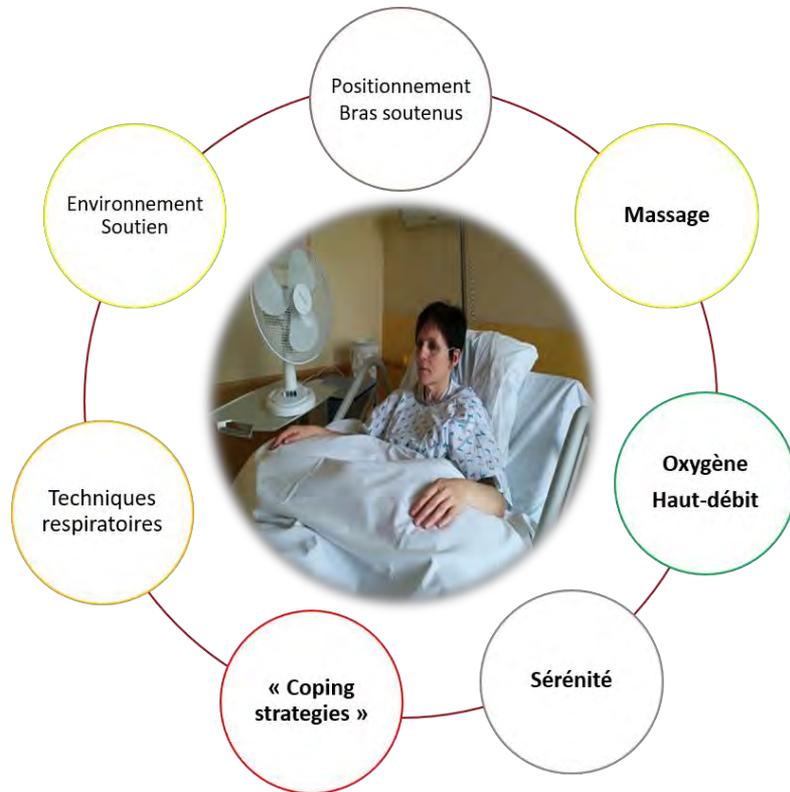


Interventions – Crise de dyspnée

Le patient palliatif

Evolution de la maladie

Le patient en fin de vie



Episodic Breathlessness

I) Predictable

II) Unpredictable

Types of known triggers:

1. exertion (e.g. walking, talking)
2. emotions (e.g. panic, anger)
3. comorbidities (e.g. infection, fever)
4. external environment (e.g. dust, temperature)

Fig. 1 International definition of episodic breathlessness.

Dyspnée en soins palliatifs - Perspectives

Le patient palliatif

Evolution de la maladie

Le patient en fin de vie



→ EBM – Dyspnée – Soins palliatifs : CHALLENGE
 (Dorman et al 2009, Visser et al 2015 et Baya-Machado et al 2017)



Table 1 / Research Topics for Refractory Breathlessness in the Palliative Care Setting

Assessment	Nondrug treatments	Drug treatments	Clinical services
1. Classification of breathlessness by trajectory, trigger, or nature	6. Interdisciplinary translational research to develop treatments based on psychophysiological mechanisms		13. Effective, cost-effective, and organizational strategies for service delivery
2. Brief functional tests for severely impaired patients	7. Physical and psychological adjuncts to exercise	11. Opioid dosing, titration, and long-term use	14. Interventions to meet the psychological and physical needs of carers and families
3. Relationships between physical activity level, breathlessness, and quality of life	8. Muscle stimulation in the home, hospital, and respite care settings	12. Role of antidepressants in the management of refractory breathlessness	15. Organization and delivery of rehabilitation services suited to the palliative care setting
4. Clinical utility and sensitivity of neural respiratory drive	9. Upper-limb functional exercise training		
5. Brain-imaging techniques to help guide treatments	10. Mobility aids to help with exertional breathlessness		

Take-home messages

Le patient palliatif

Evolution de la maladie

Le patient en fin de vie

Symptômes

Anticipation

Angoisse
Stress

Evaluation

Self
management

Crise de
dyspnée

Qualité de vie

*"Priorities for research include the optimal clinical use of **opioids**, including patient selection and safe titration, and how to foster the uptake of **evidence-based non-pharmacological interventions** into routine clinical care. The identification of a relationship between the descriptors of breathlessness, the underlying aetiology and the most effective symptomatic intervention will continue to be sought."* Currow et al 2016, Cochrane

Benzodiazepines may be considered as a second- or third-line treatment, when opioids and non-pharmacological measures have failed to control breathlessness. Simon et al 2016, Cochrane

*...This allows **physical therapists** the opportunity to play a **crucial and unique role** in this area of care, as this field of care continues to grow within the profession.* Putt et al 2015



Merci

