



# Psychological Management In Patients With Chronic Lung Disease

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# 오늘의 주제

- Psychological management in patients with chronic lung disease
- Psychological treatment, 즉 정신치료 및 면담치료가 아닌
- Management of psychological symptoms in patients with Chronic lung disease

# Psychiatric Aspects of Lung Disease in Critical Care



Yelizaveta Sher, MD

## KEYWORDS

- Psychiatric aspects of pulmonary disease • Critical care • Anxiety • Depression
- Intensive care unit • Demoralization • Neuropsychiatric symptoms
- Psychiatric aspects of lung disease

## KEY POINTS

- Psychiatric conditions are common in patients with chronic lung disease and new psychiatric symptoms arise with pulmonary decompensation in critical care units.
- Substance use disorders (SUDs) are associated with the development of multiple acute and chronic pulmonary conditions, significantly contributing to morbidity and mortality of patients with lung disease.
- Differential for anxiety in intensive care unit (ICU) patients with lung disease includes underlying pulmonary or another medical condition, medications, assistive devices in ICU, and primary psychiatric conditions.
- Clinicians must be aware of potential neuropsychiatric side effects of medications used in patients with lung disease in the ICU, including steroids, immunosuppressants, beta-blockers, and antibiotics.
- Clinicians managing psychiatric symptoms in patients with lung disease must be aware of psychotropic drug properties (eg, half-life, mechanism of action), concerns (eg, QTc), side effects (eg, withdrawal, toxicity, acute reactions), and drug–drug interactions.

# Epidemiology Of Psychiatric Illness In Chronic Lung Disease

- A meta-analysis of 8 controlled studies found a significantly increased prevalence of depression in 27.1% patients with COPD, as compared with 10.0% in controls.<sup>1</sup>
- Patients with COPD are 10 times more likely to have panic disorder (PD).<sup>2</sup>
- Depression and anxiety have negative consequences on outcomes in subjects with COPD
  - In a meta-analysis of 16 studies, relative risk of mortality in COPD subjects with depression or anxiety was 1.83 and 1.27, respectively, as compared with COPD subjects without psychiatric comorbidities.<sup>3</sup>
  - depression and anxiety were associated with a greater incidence of COPD exacerbations, hospitalizations for exacerbations, and hospital length of stay.<sup>3</sup>

1. Matte DL, Pizzichini MM, Hoepers AT, et al. Prevalence of depression in COPD: a systematic review and meta-analysis of controlled studies. *Respir Med* 2016;117:154–61.

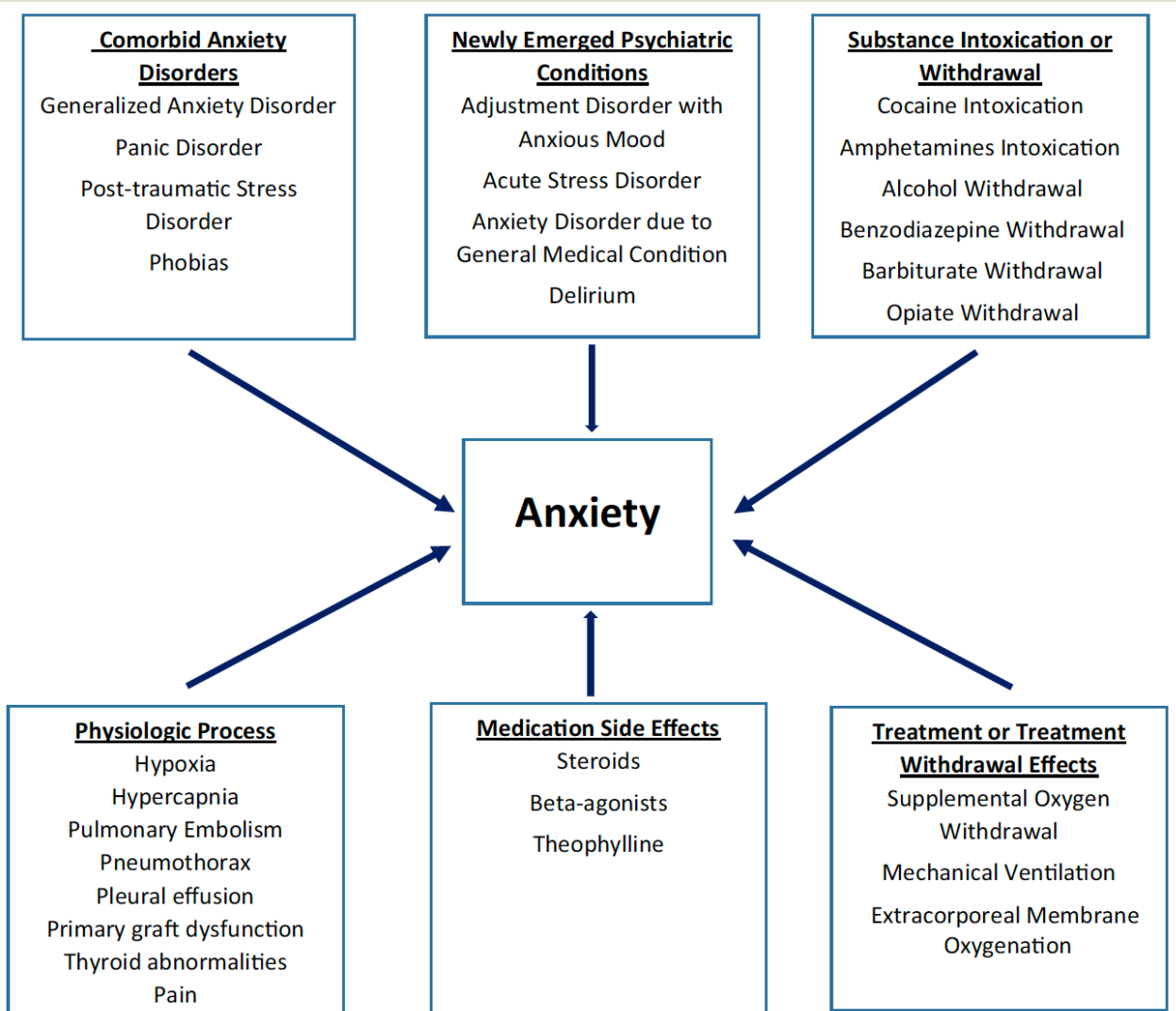
2. Freire RC, Perna G, Nardi AE. Panic disorder respiratory subtype: psychopathology, laboratory challenge tests, and response to treatment. *Harv Rev Psychiatry* 2010;18(4):220–9.

3. Atlantis E, Fahey P, Cochrane B, et al. Bidirectional associations between clinically relevant depression or anxiety and COPD: a systematic review and meta-analysis. *Chest* 2013;144(3):766–77.

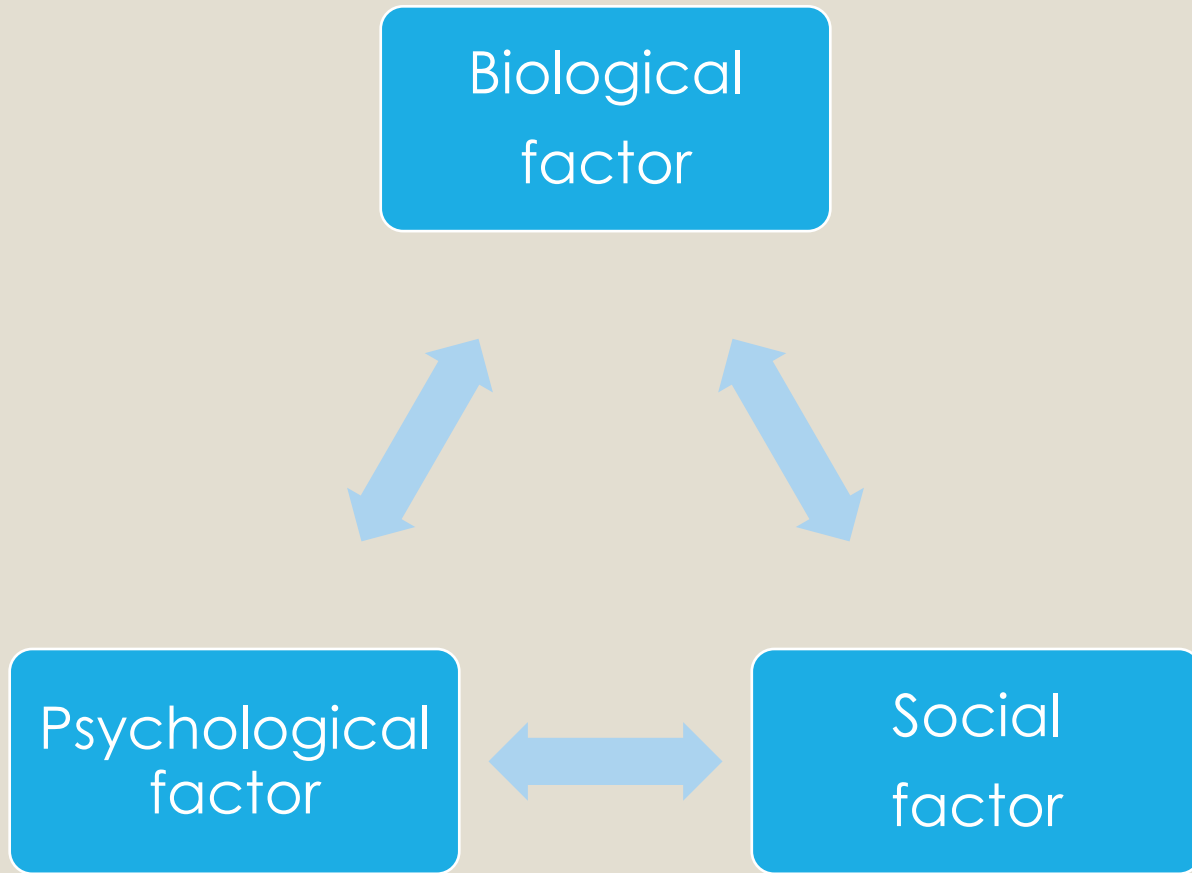
**Table 1**  
**Neuropsychiatric side effects of pulmonary medications**

<b>Medications</b>	<b>Neuropsychiatric Side Effects</b>
Steroids	Anxiety, insomnia, restlessness, cognitive dysfunction, delirium, mania, psychosis; depression long-term and when tapering off
Beta2-agonists Albuterol Levalbuterol Salmeterol	Anxiety, tremor, insomnia
Mixed alpha-agonists and beta-agonists Ephinephrine Ephedrine Phenylephrine Phenylpropanolamine	Anxiety, insomnia, tremor, psychosis
Methylxanthines Theophylline	Jitteriness, insomnia, anxiety, irritability, panic
Anticholinergics Atropine	Paranoia, hallucinations, memory loss, delirium agitation
Leukotriene inhibitors Montelukast	Dizziness, fatigue, asthenia, suicidal ideation
Acetazolamide	Confusion and malaise
Calcineurin inhibitors in transplant patients Tacrolimus Cellcept Sirolimus	Anxiety, tremor, anxiety, psychosis, delirium, PRES
Antibiotics Penicillins Cephalosporins (cefepime, ceftazidime) Antimycobacterials (isoniazid) Quinolones (ciprofloxacin) Macrolides (clarithromycin) Metronidazole Sulfonamides	Delirium, seizures, myoclonus Delirium, psychosis Delirium, cerebellar signs Psychosis

# Differential for anxiety in patients with CLD



# 정신건강의학과의 기본 모델



- If you treat one, other becomes better
- If one gets worse, other can become worse as well

# 인지행동치료의 쉬운 이해 - 강박장애

인지

Obsessive compulsive disorder

- Obsession (손이 더럽다)

- Compulsion (손을 씻는다)

치료 법은?

감정

행동/신체반응

# 실생활 모델 - 인지행동치료 모델

인지

내일 큰 시험이 있음

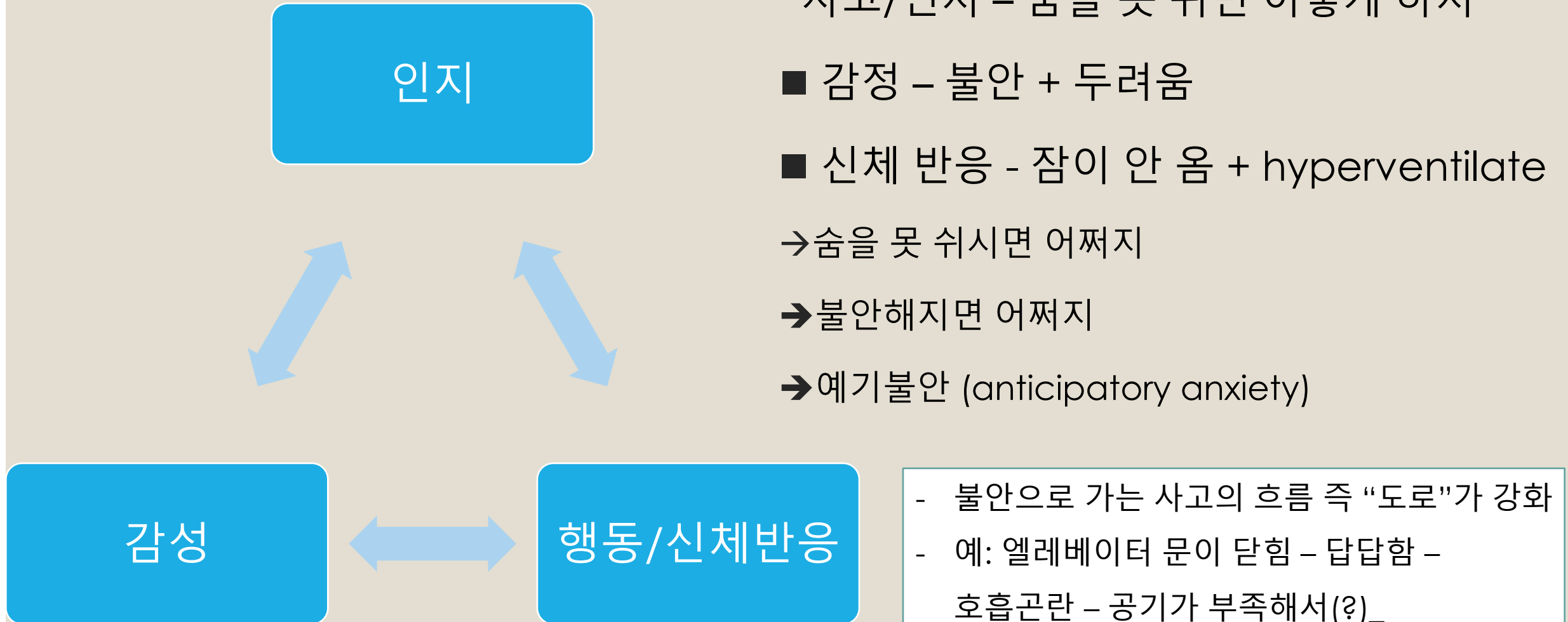
- 사고/인지 - 못 보면 어떻게 하지?
- 감정 - 불안해짐
- 신체 반응 - 잠이 안 옴

우리의 Target 증상은 (?)

감정

행동/신체반응

# In chronic lung disease

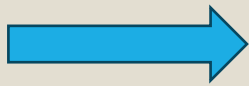


# 공포 - 불안

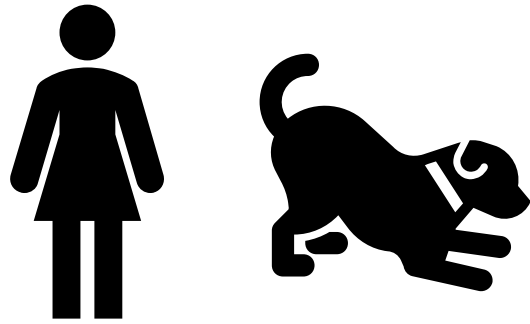
◦ 어떤 치료를 받게 되는 것인가?



공포의 대상



치료는?



방안에



# 치료의 개념



방안에



두려움 정도

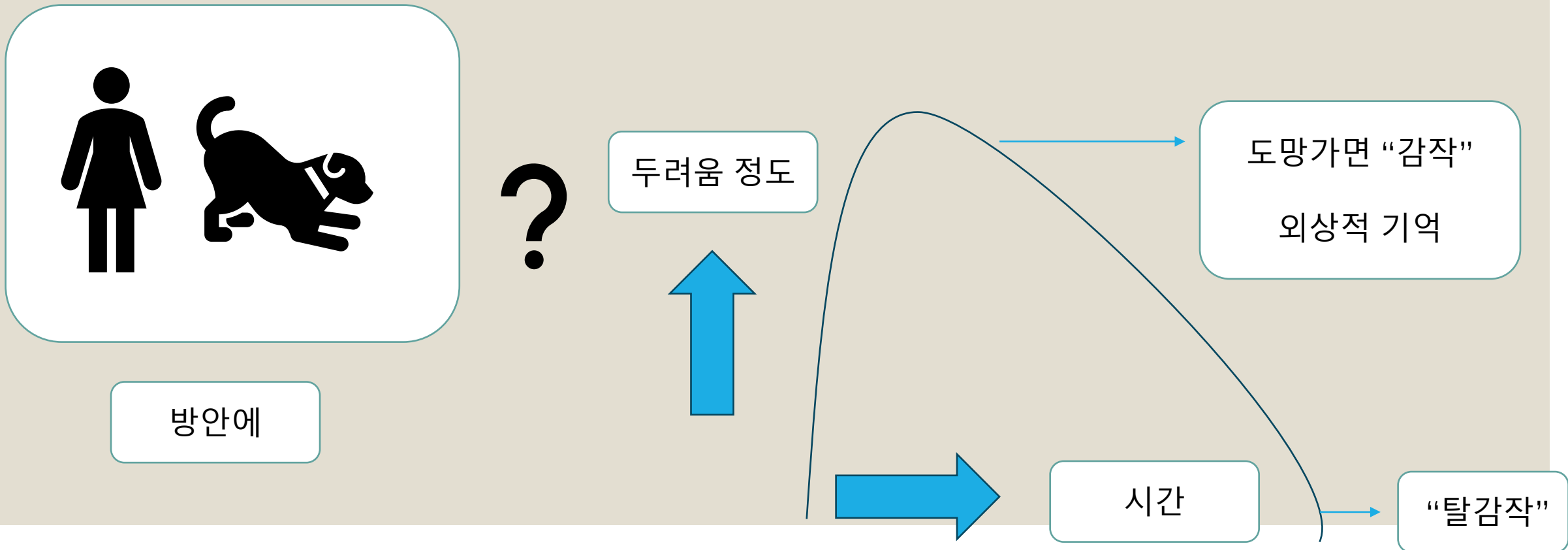


시간

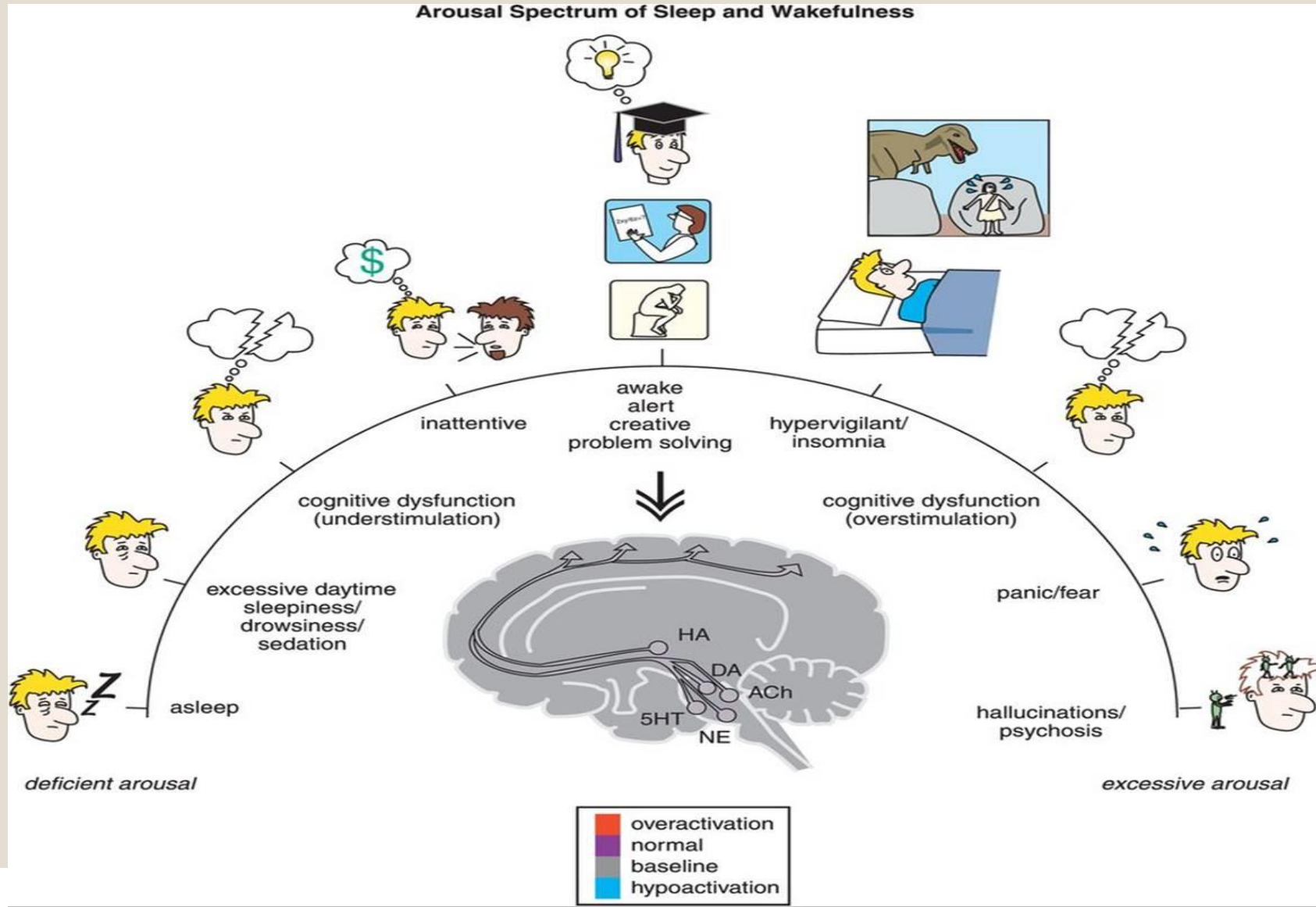
반복하면 극복

# 공포 - 불안

◦ 호흡곤란에 대한 불안 및 공포는?

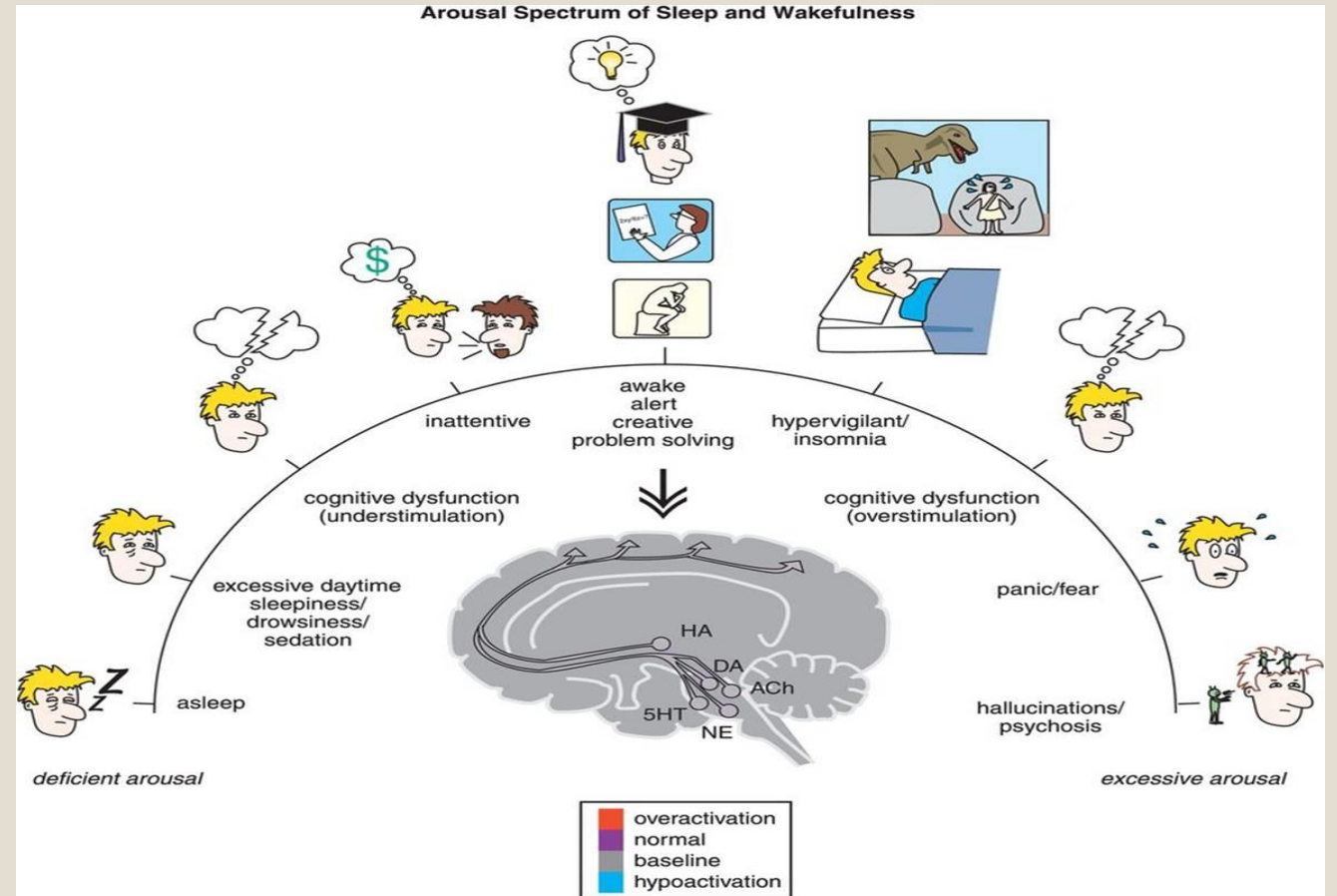


# 호흡기 환자에서 불안증상의 약물 치료 전략



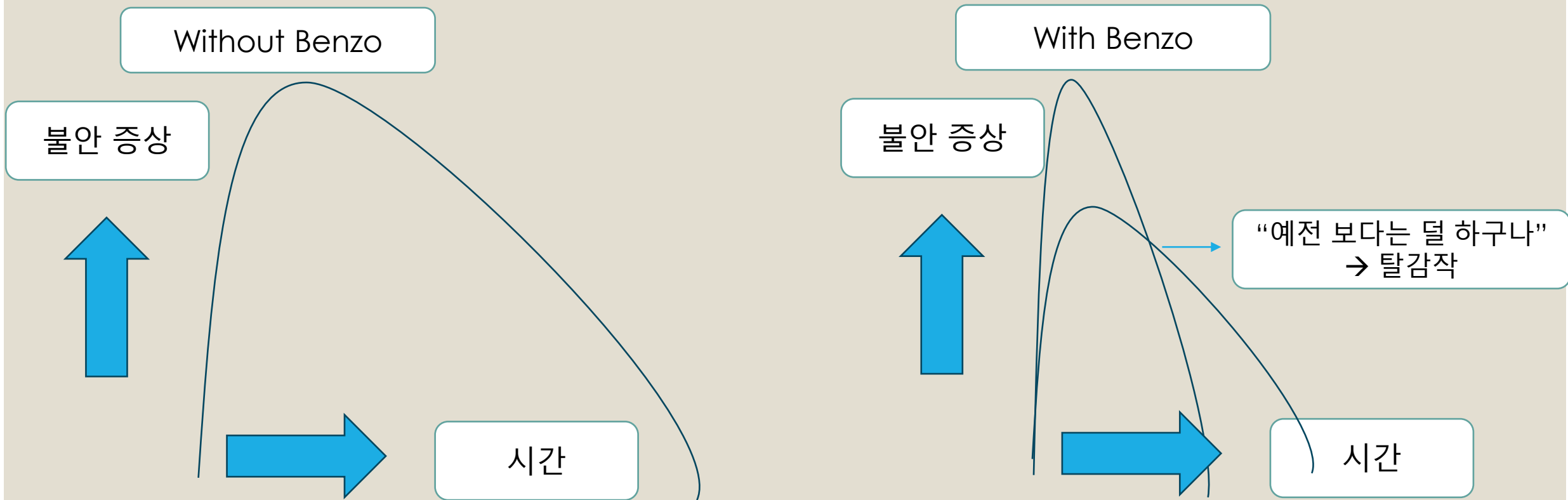
# 호흡기 환자에서 불안증상의 약물 치료 전략

- 1) Anxiety attack이 있을 때  
증상 완화 → 탈감작
- 2) 수면 개선
- 3) Baseline anxiety 감소



# 약물 치료 전략 - 불안의 완화

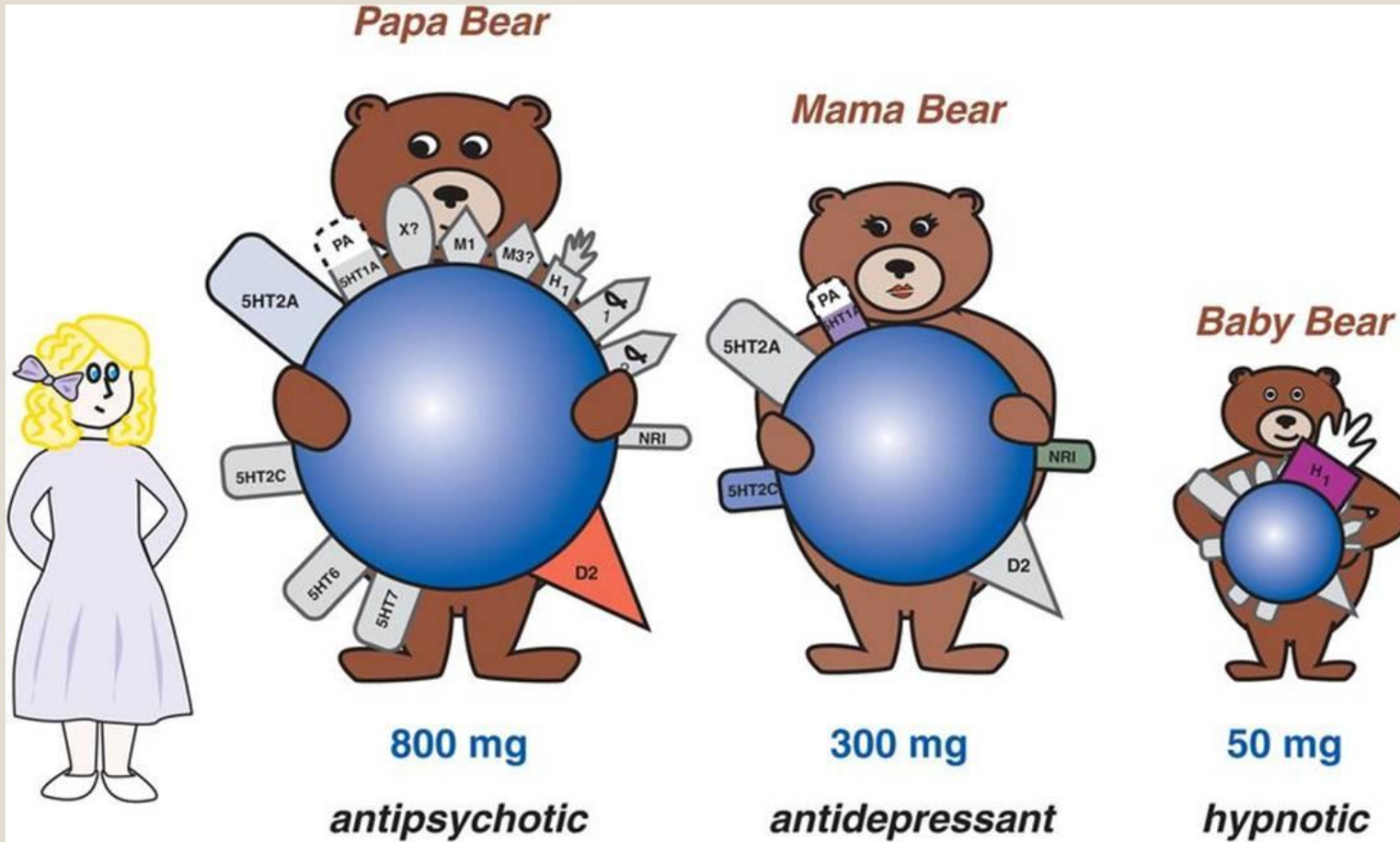
- 정신건강의학과로 의뢰시 환자의 “respiratory function”의 정도, 즉 benzodiazepine 사용 가능 여부 정보는 많은 도움



# 약물 치료 전략 - 수면 완화

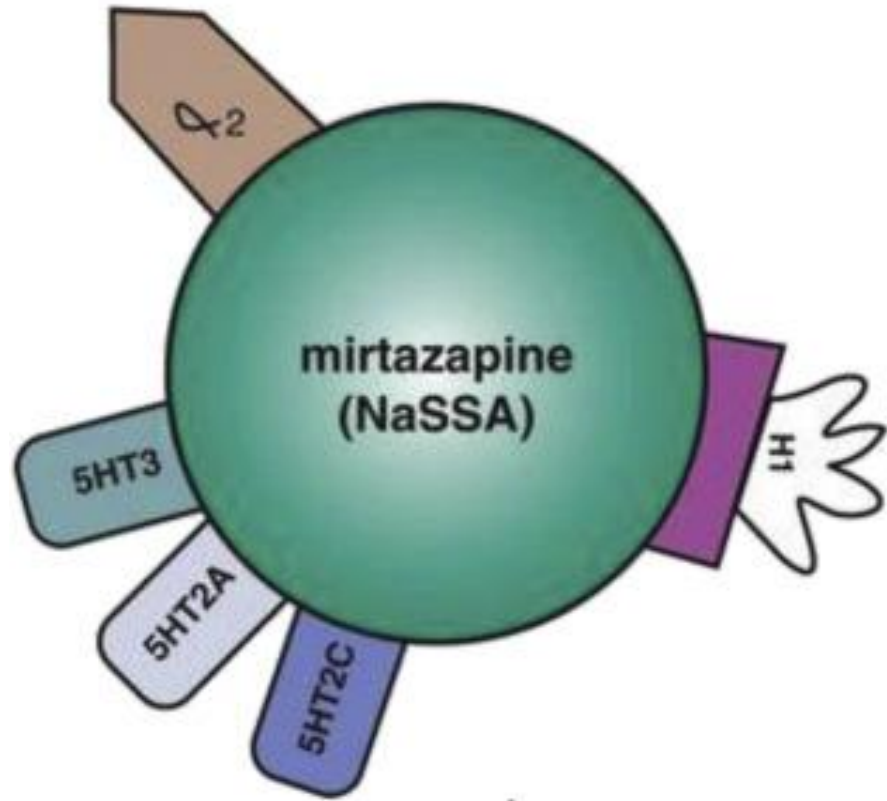
- Non-Benzodiazepine 계 약물을 우선으로
- TCA: Doxepin 3~6mg
- Tradozone 25 ~ 100mg
- Quetiapine 25 ~ 100mg
- Mirtazapine 7.5 ~ 15mg

# 정신건강의학과 의사의 quetiapine 사랑(?)



- Character

- Alpha-1 and H1 blocker = weight gain, sedation, orthostatic hypotension, dizziness, and fall
- M1 receptor antagonism = anticholinergic side effect



### CHRONIC BRONCHITIS

CLINICAL DIAGNOSIS: DAILY PRODUCTIVE COUGH FOR THREE MONTHS OR MORE, IN AT LEAST TWO CONSECUTIVE YEARS

OVERWEIGHT AND CYANOTIC

ELEVATED HEMOGLOBIN

RHONCHI AND WHEEZING

PERIPHERAL EDEMA

### EMPHYSEMA

PATHOLOGIC DIAGNOSIS: PERMANENT ENLARGEMENT AND DESTRUCTION OF AIRSPACES DISTAL TO THE TERMINAL BRONCHIOLE

OLDER AND THIN

SEVERE DYSPNEA

QUIET CHEST

X-RAY: HYPERINFLATION WITH FLATTENED DIAPHRAGMS

- Mirtazapine

- Pros : sleep & agitation

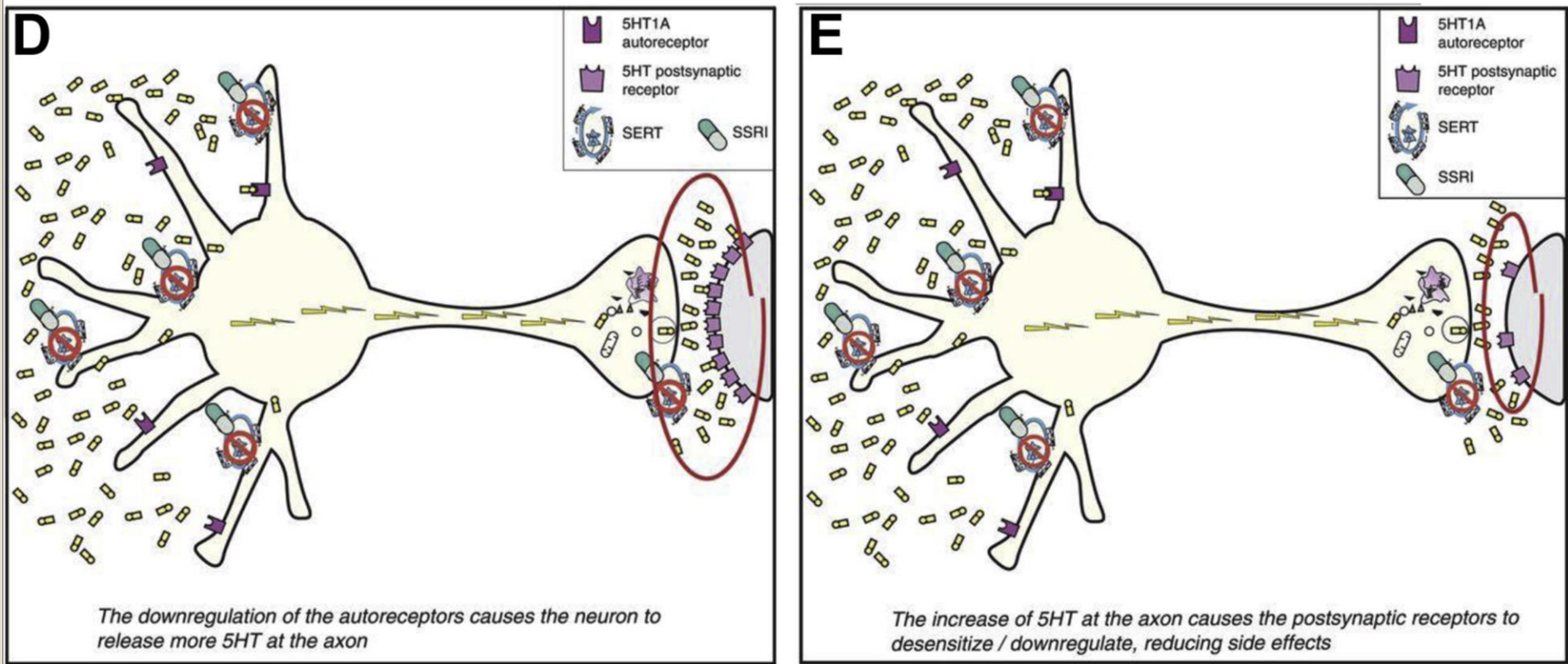
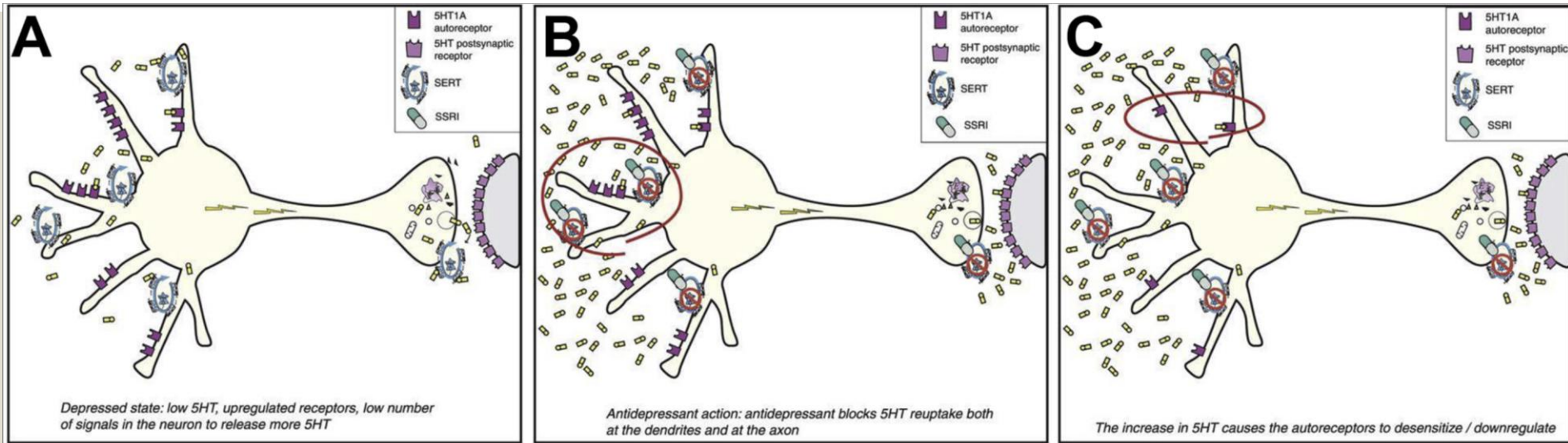
anti-emetics → appetite & motivation → weight gain; helpful in cachexia, sarcopenia, chemotherapy patients

- Cons : weight gain – not suitable in DM – metabolic side effect

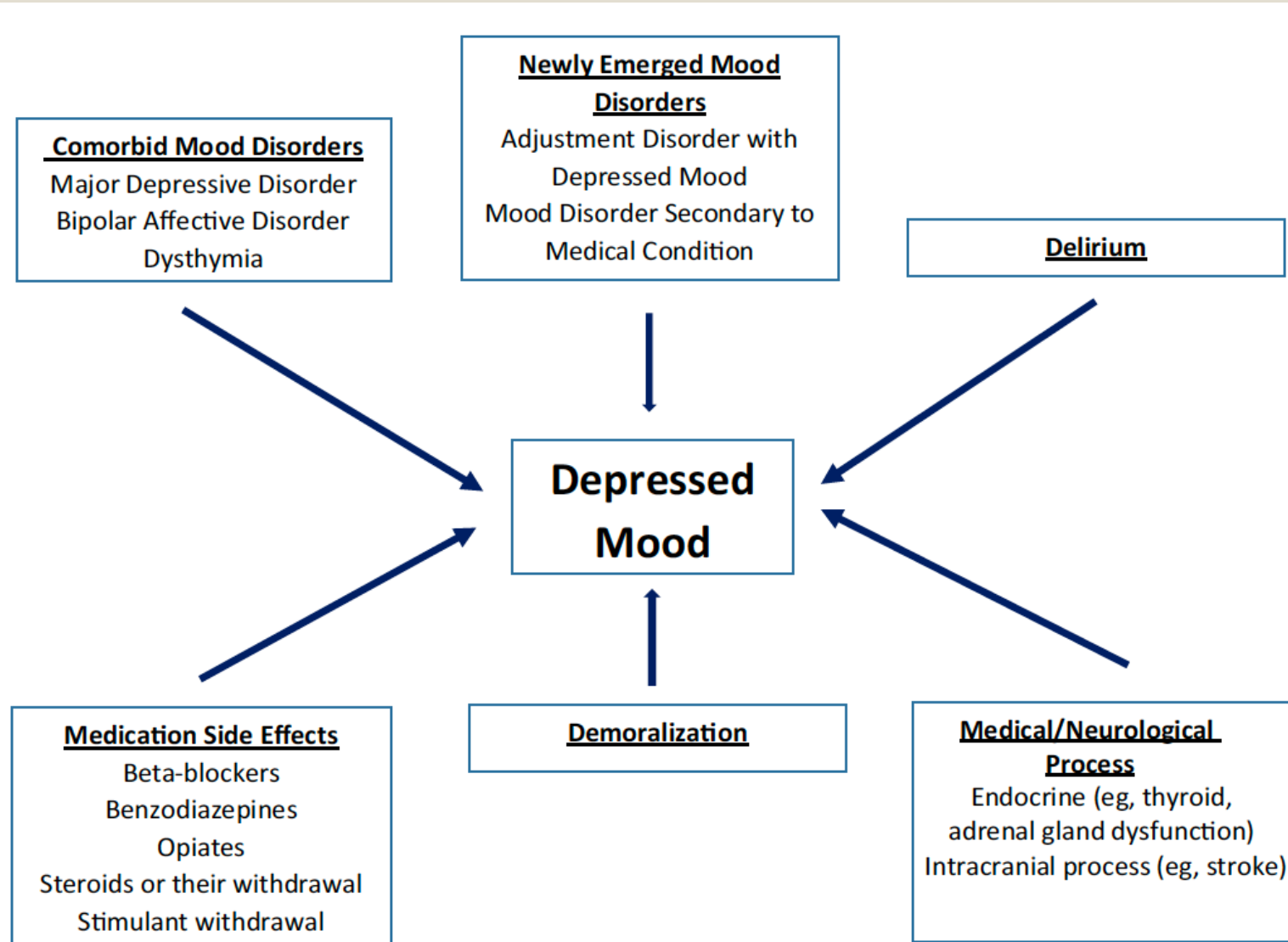
falls and orthostatic hypotension; rare RLS

# 약물 치료 전략 – 기저 불안 낮추기

- Selective Serotonin Reuptake inhibitor
  - Prefer Escitalopram, Sertraline, and Fluoxetine
  - Not Paroxetine in elderly
  - 약물 효과 나타나기 까지 2 ~8 주, 이에 Benzodiazepine 필요



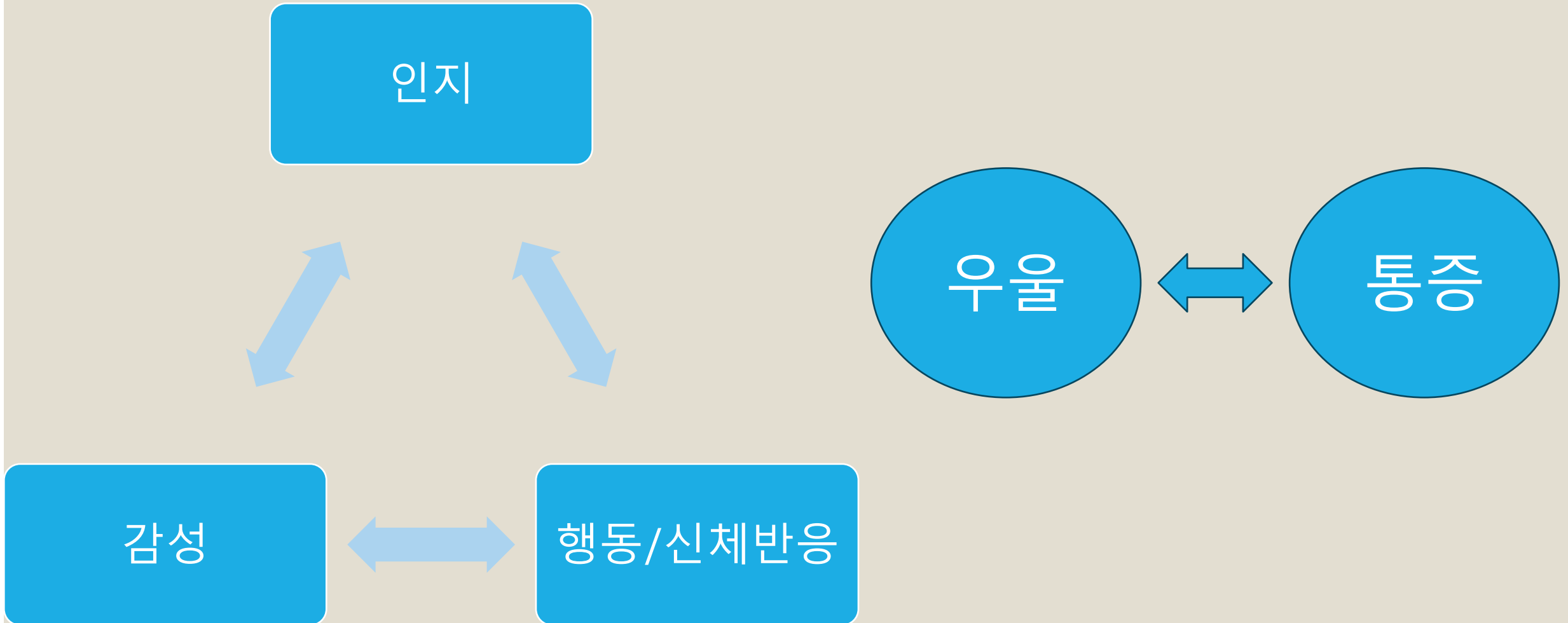
# Differential for depression in patients with CLD



# 심리적 요인이 관련된 만성 통증 (신체증상)

- 호흡기적으로 명확한 병변이 없거나, 있어도 통증에 원인이 아닌 경우, 그러나 지속적인 통증을 호소하는 경우
- 우울증 및 불안 등 심리적 요인이 통증을 악화 할 가능성
- 통증 혹은 감각의 “역치”는 슬프거나 불안하면 낮아짐
  - 즉 통각이 민감해짐

# 통증의 역치가 낮아짐



# 심리적 요인이 관련된 만성 통증 (신체증상)

- 환자의 증상은 간단히 물어보고
- 환자의 everyday life and 기능에 집중
- “어짜피 아플것 사람들 만나고 취미 생활 가지면서 하세요”
- 쉽게 시작 할 수 있는 것 부터
  - 일주일에 4번 헬스장 vs 일주일에 4번 외식
  - 외식 → 혼자 카페 가기 → 사람들 만나기 → 점진적 증가
- Zero-sum game:
  - 통증이 있는 시간을 줄이는 것이 아닌, 활동 시간을 늘리기 → 그럼 줄어듬

# 행동 교정이 필요 할 때



제시한 방향으로 함께 가는  
Gradual & zig-zag



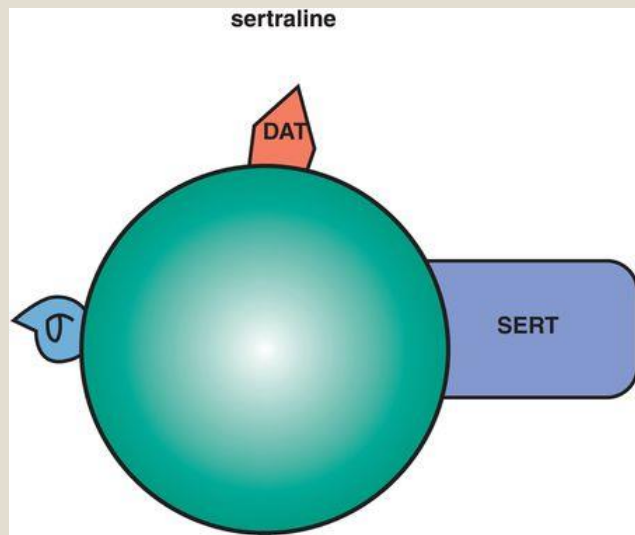
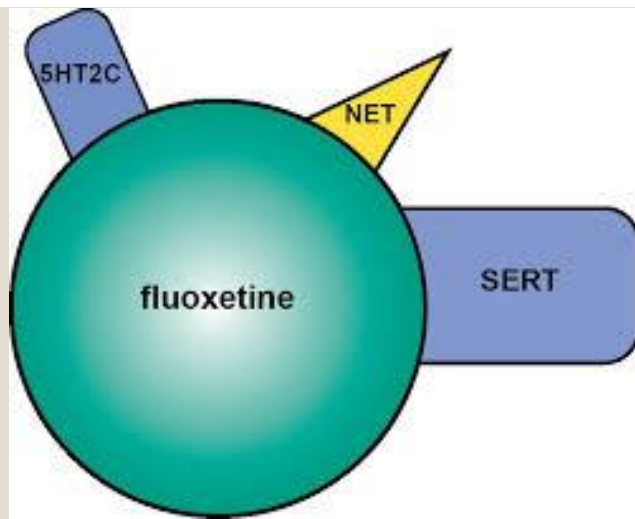
# 행동 교정이 필요 할 때

“정말 잘 하셨네요.” “노력 많이 하셨는데요”



주의: 잘 하는 것에 주의/칭찬을 주어 positive feedback

“와! 담배 1갑에서 반갑으로 줄이셨어요?”



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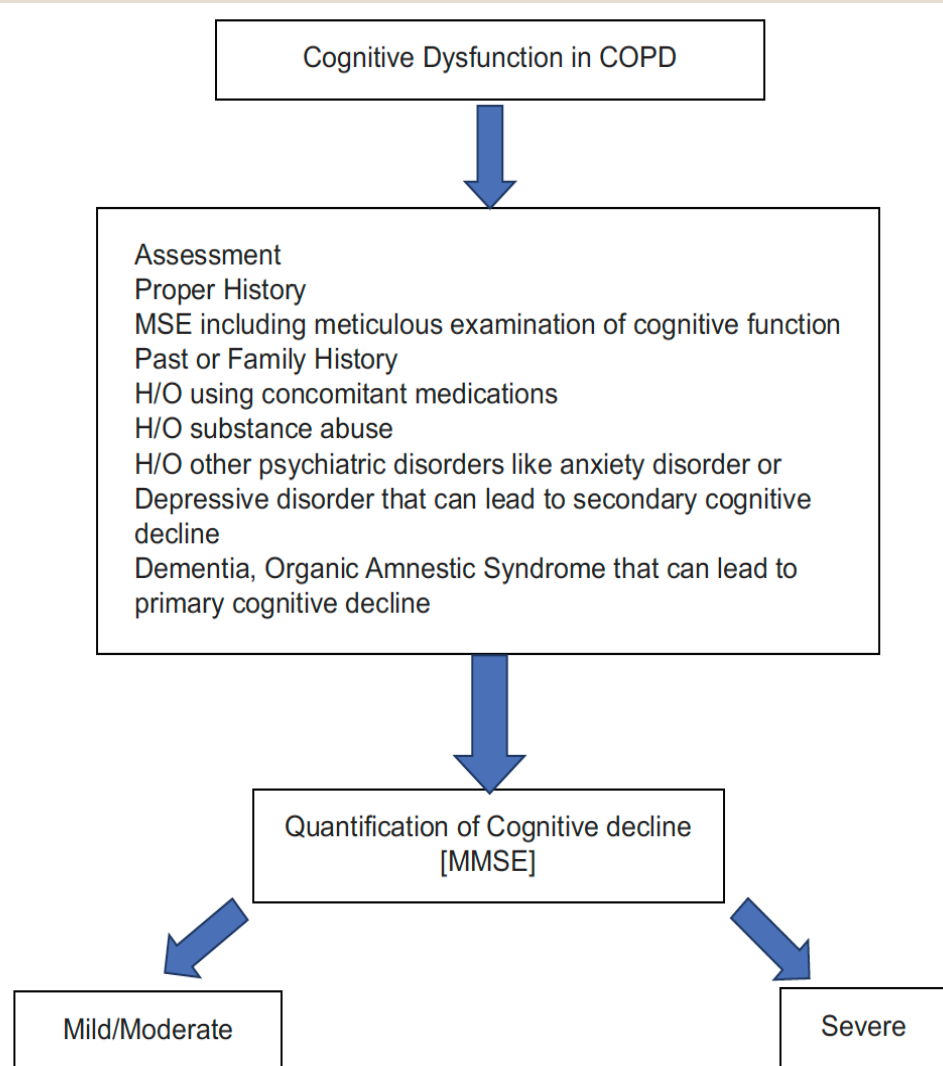
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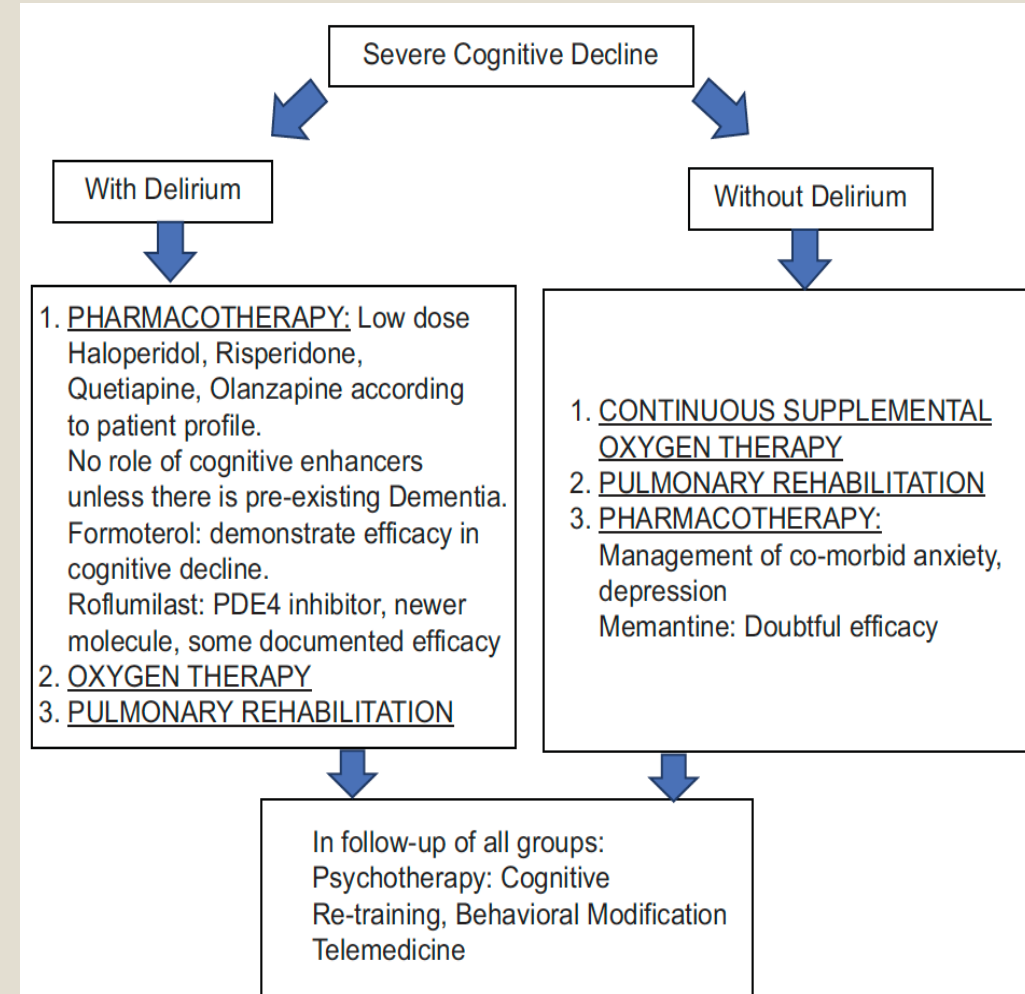


X-RAY: HYPERINFLATION WITH FLATTENED DIAPHRAGMS

# Cognitive dysfunction in CLD



**Flowchart 2:** Assessment of cognitive dysfunctions in COPD



**Flowchart 3:** Treatment of severe cognitive decline in patients suffering from COPD

◦ 감사합니다