

# Problems that in NPU for patient with mental illness

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for patient with mental illness

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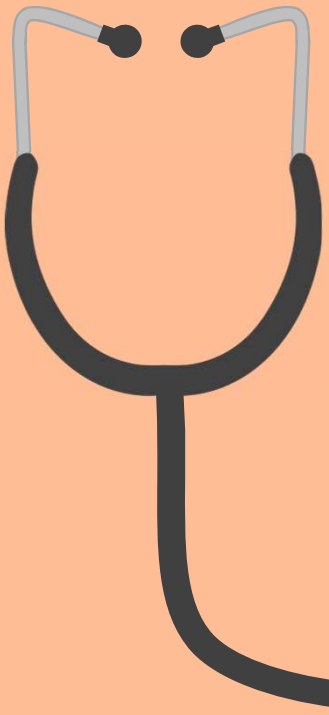
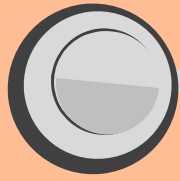
# 01 What is NPU?



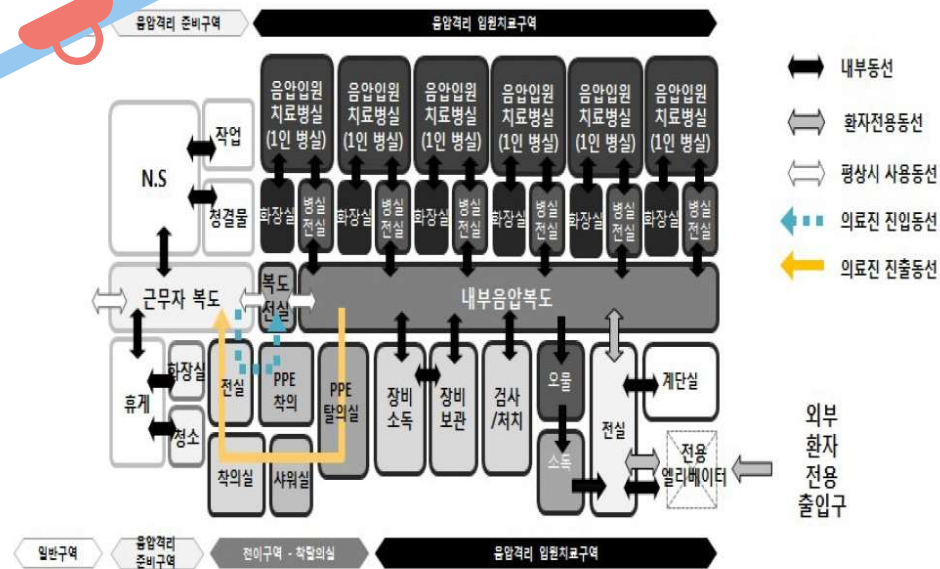
“Find problems that may arise in **NPU** for patient with mental illness”

# What is NPU?

A "Negative Pressure Unit" is  
a special isolation ward that blocks the spread  
of pathogens inside the room to the outside.



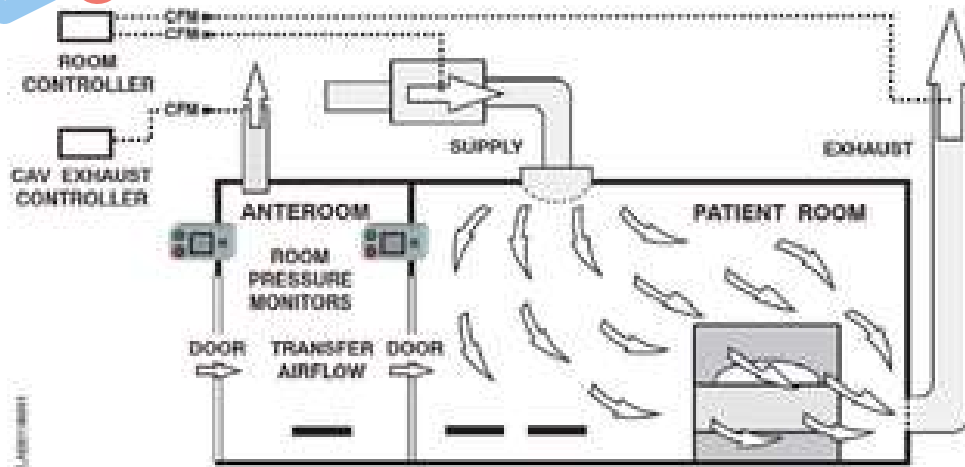
# Standard of NPU



- Physically separated from the general area
- Divided into negative pressure zone and non-negative zone
- Corridor rooms, dressing rooms, bedrooms and restrooms, waste disposal rooms, and equipment storage rooms are arranged

[그림] 중복지형 음압격리입원치료병상 예시(색이 진할수록 음압이 강함)

# Structure of NPU



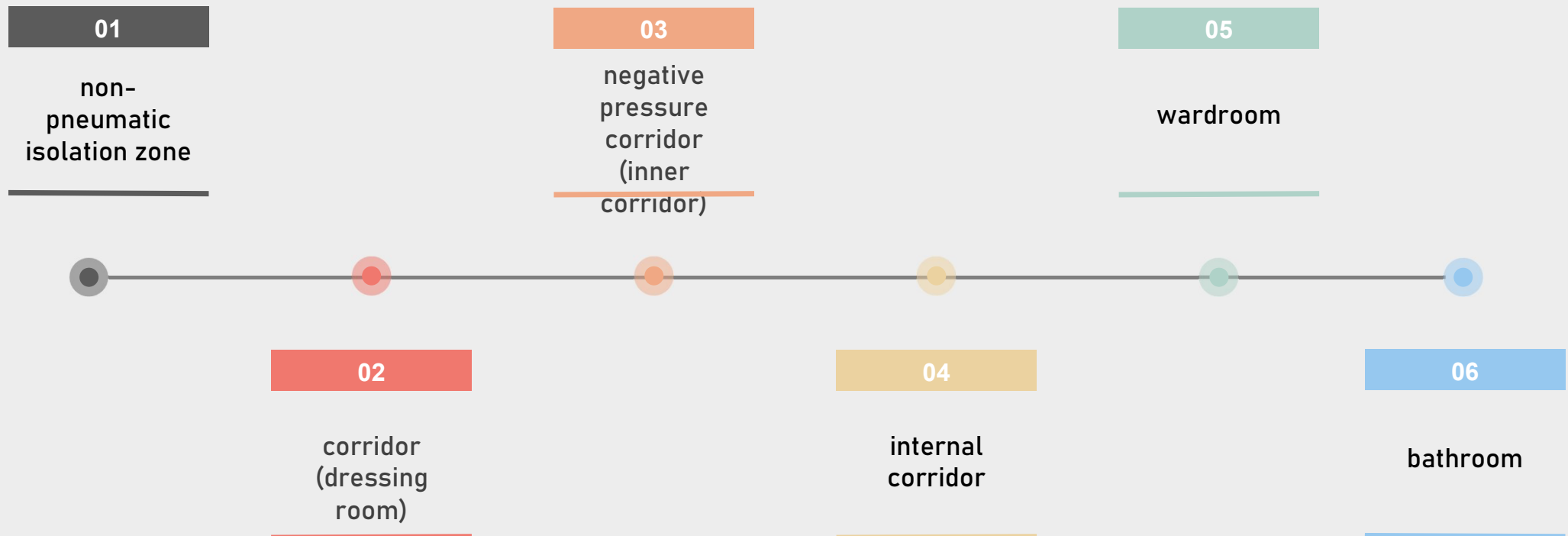
▲ 음압격리병실 제어 구성도.

- Since air flows from high pressure to low pressure in principle, keeping the inside of the room artificially low pressure can block the air inside from escaping out.

- In addition, air from the hospital room is released through a separate exhaust facility, where invisible bacteria and viruses are filtered out through the HEPA filter. (Highly Efficient Particulate Air Filter)

# Structure of NPU

The negative pressure unit controls the air pressure in the room so that air flows from low to high in this order





## 02 Present Condition



“Find problems that may arise in **NPU** for patient with mental illness”



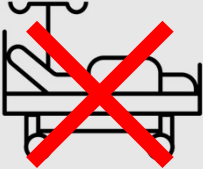
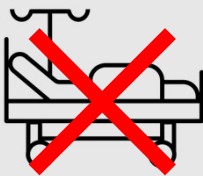
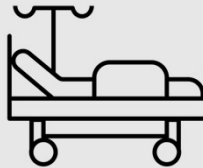
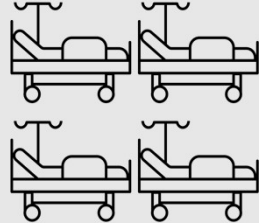
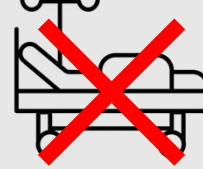
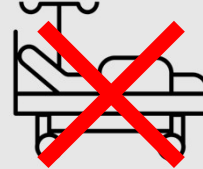
# Total amount before COVID-19

- ✓ The total amount of negative pressure hospital bed is 1027
- ✓ The total amount of negative pressure hospital room is 755
- ✓ Shortage of NPU
- ✓ NPU is biased only in certain cities.



서울	383	전체 1027개 병상 ..... 755개 병실	대전	27
경기	143		충남	26
부산	90		전남	26
경남	71		충북	23
대구	54		전북	23
인천	54		제주	17

# Status of negative pressure rooms in the National Psychiatric Hospital +

춘천 Chuncheon	공주 Gongju	서울 Seoul	나주 Naju	부곡 Bugok
		 <p>Private ward x 8</p>  <p>Ward for 4 person x 4</p>		

# Future policy after COVID-19

## Additional NPU installation

250 Additional NPUs  
Installation Announcement



## Force additional installation

Mandatory to install NPUs.



# 03 Problems



“Find problems that may arise in **NPU** for patient with mental illness”

**[Problems]**

>>>

**Priority** ✨



**01**  
**Closed space**



**02**  
**Lack of budget**



**03**  
**Communication**



**04**  
**Monitoring and Control**





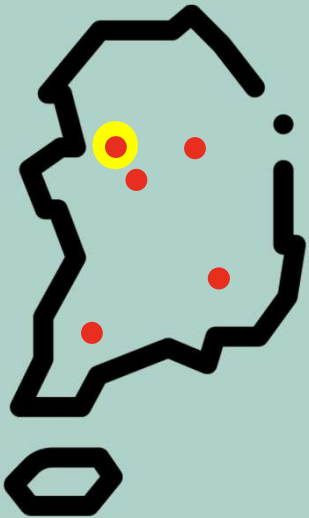
# 01 Closed space



- Closed-> Another Mental Problem Possible
- Insulation description insufficient -> Anxiety increased
- In the case of negative pressure isolation, uncertainty of complete recovery and isolation period, increasing difficulties due to social stigma

## 02 Lack of budget

- Cost : About 270,000 dollars per sickbed
- Where there are **NPU** : **1** places -> Seoul
- The protection of the socially disadvantaged is the duty of the state
- Installation of **NPU**  
-> Reduced number of general hospital rooms





## 03 Communication




Medical staff wearing complex medical protective gear to prevent infection



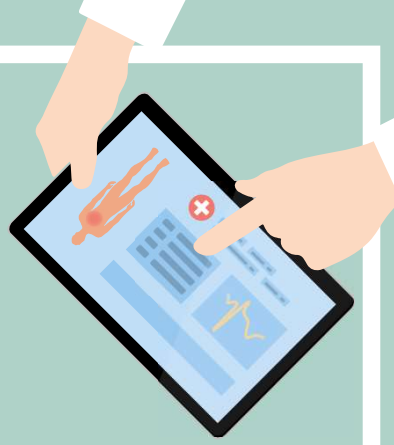
Poor communication



Impossible to solve emotional problems



## 04 Monitoring and Control



- The negative pressure room is monitored and controlled 24 hours a day.
- Unprotected privacy of patients -> Complaints -> Possible danger  
Ex) Denial of treatment and medical accident

# 04 Question



“Find problems that may arise in **NPU** for patient with mental illness”





## [Question]



1. There was an article in some closed wards saying that there were structures that were impossible to prevent living, but is there any case of infection in the negative pressure room?
2. What are the similarities and differences between aseptic and negative pressure rooms?
3. For an efficient medical system in the future, which criteria should the hospital's negative pressure and general hospital rooms be designed to meet?
4. Is there a medium hospital room for negative pressure and general hospital rooms?

## [Question]

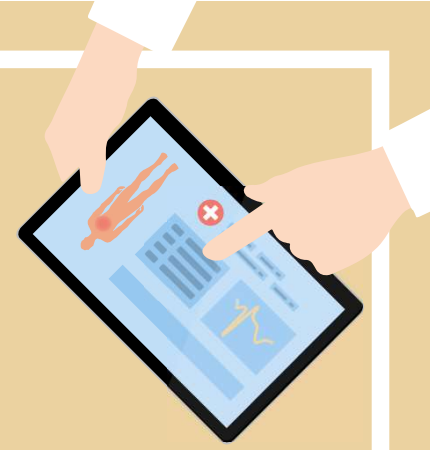
5. What are some ways to increase the economic effectiveness of negative pressure rooms?

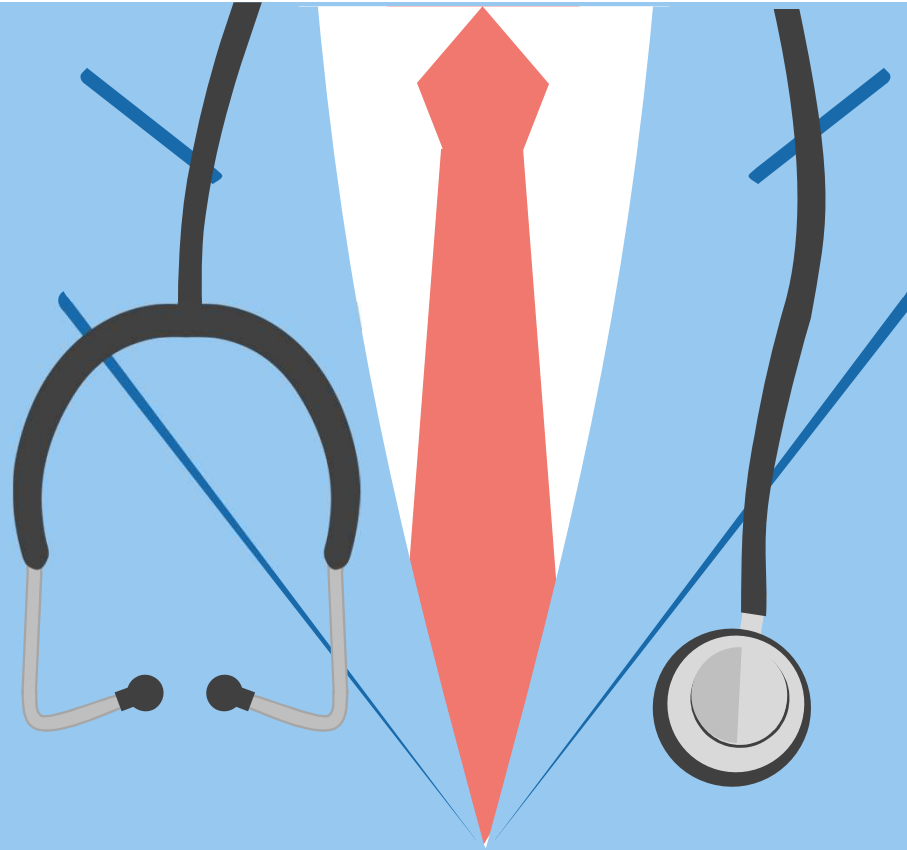
6. What can be done quickly in the event of an emergency for a mentally ill patient in a negative pressure room?

7. How will the immunological management of mental patients be carried out within the negative pressure ward?

8. What happens to the transport of mentally ill patients subject to isolation when there is a shortage of negative pressure wards?

9. Is there a high demand for volunteers?





THANK YOU