## 1. Level of Evidence 기준

# 아래는 현재 진료지침에서 사용하고 있는 Level of Evidence (LOE) 기준입니다.

Level of evidence (LOE)		
la	Evidence obtained from meta-analysis of randomized controlled trials	
Ib	Evidence obtained from at least one randomized controlled trial	
lla	Evidence obtained from at least one well-designed controlled study without randomization	
IIb	Evidence obtained from at least one other type of well-designed quasi-experimental study	
III	Evidence obtained from well-designed non-experimental descriptive studies, such as comparative studies, correlation studies and case studies	
IV	Evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities	

#### 설명

- 1. Meta-analysis randomized controlled trials (LOE Ia))
- RCT (randomized controlled trial) 들의 메타결과가 있는 경우: 포함된 RCT들의 primary endpoint 또는 그에 준하는 endpoint를 메타분석한 경우이며 각 임상시험의 subgroup이 아니고 전체 환자를 분석한 결과여야 한다.
- Subgroup 결과를 메타분석한 경우는 포함된 subgroup의 sample size나 대표성을 고려하여 근거수준을 판단한다.
- 포함된 RCT 중 적어도 하나 이상은 positive result를 보여야 한다. Neutral result 를 보인 RCT를 모아서 메타분석에서 positive 가 나온 경우는 LOE la 가 아니라 lb 또는 lla로 판단해서 하향 조정한다.
- Observational study 메타분석결과의 LOE는 la에 해당되지 않고 Ⅲ에 해당된다.

#### 2. RCT (LOE Ib))

- Subjects are randomly selected and randomly assigned to groups to undergo rigorously controlled experimental conditions or interventions.: 전형적인 phase III RCT
- Phase III RCT 에서 subgroup 결과에 대해서는 LOE IIa로 하향 조정한다.
- RCT이지만 phase IIb 또는 그 이하 수준의 RCT에서 나온 근거는 LOE Ib에 해당하지 않고 낮은 수준의 근거로 하향 조정한다.
- 3. Well-designed controlled study without randomization (LOE IIa)
- An experimental study in which people are allocated to different interventions using methods that are not random.
- Intervention 이 가해진 연구이지만 무작위배정이 되지 않은 연구
- Phase III RCT 에서 subgroup 결과에 significant interaction 이 없고, 전체 환자의 연구결과와 같은 방향성을 보이는 경우 LOE IIa 근거수준에 해당한다.
- 4. Well-designed quasi-experimental study (LOE IIb)
- An empirical study used to estimate the causal impact of an intervention on its target population. 일반적으로 한 집단에서 intervention 전과 후를 비교 (특별한 교육프로그램 시행 후 학업성취도 향상되었는지 실험)한 연구

- A quasi-experimental study is a type of evaluation which aims to determine whether a program
  or intervention has the intended effect on a study's participants.
  (<a href="http://www.nationaltechcenter.org/index.php/products/at-research-matters/quasi-experimental-study/">http://www.nationaltechcenter.org/index.php/products/at-research-matters/quasi-experimental-study/</a>)
- Well-designed controlled study without randomization과 명확한 구분이 어려운 경우가 있는데,
   두 집단을 Parallel 하게 intervention 을 하지 않고 한 집단에서 intervention 전후를 비교한 경우는 Well-designed guasi-experimental study에 해당된다.

#### 5. Well-designed non-experimental descriptive studies (LOE III)

- Clinical cohort study: an examination of groups of people who have common characteristics or exposure experiences to compare outcomes in those exposed vs. outcomes in those not exposed (e.g., development of heart disease after exposure or nonexposure to 10 years of secondhand smoke).
- Case-controlled study: use of an observational approach in which subjects known to have a disease or outcome are compared with subjects known not to have that disease or outcome. Subjects are matched on characteristics so that they are as similar as possible except for the disease or outcome. Case-control studies are generally designed to estimate the odds (using an odds ratio) of developing the studied condition or disease and can determine if an associated relationship exists between the condition/disease and risk factors.
- Uncontrolled study: studies that do not control participant selection or interventions (e.g., a convenience sample, such as patients on a given unit, may be studied because it's the only group reasonably available)
- Epidemiological study: studies that observe people over a long time to determine risk or likelihood of developing diseases. These studies include retrospective database searches or prospective studies that follow a population over time.
- Qualitative study/quantitative study: descriptive, word-based phenomena, such as symptoms, behaviors, culture and group dynamics. Quantitative studies use statistical methods to establish numerical relationships that are correlational or cause and effect.
- 6. Expert committee reports or opinions and/or clinical experiences of respected authorities (LOE IV)
- Expert committee (not individual expert) review or opinion

### 참고자료

https://ce.nurse.com/ebp.aspx

 $\underline{\text{http://researchguides.ebling.library.wisc.edu/content.php?pid=325126\&sid=2940230}}$ 

## 2. 권고안 합의

각 권고안에 대한 동의 여부를 9단계 중 선택해 주시기 바랍니다.

점수	의미	분류
9	매우 강력하게 동의: very strongly agree	동의
8	강력하게 동의: strongly agree	동의
7	동의: agree	동의
6	불명확하나 지지하는 편: uncertain, but supporting	불명확
5	불명확: uncertain	불명확
4	불명확하나 반대하는 편: uncertain, but not supporting	불명확
3	동의하지 않음: disagree	동의하지 않음
2	강력하게 동의하지 않음: strongly disagree	동의하지 않음
1	매우 강력하게 동의하지 않음: very strongly disagree	동의하지 않음

- 7-9점은 동의, 4-6점은 불명확, 그리고 1-3점은 동의하지 않음으로 처리합니다.
- 각 권고안마다 전체 응답자의 75% 이상 동의(7-9점)가 이루어지면 합의된 것으로 결정합니다.