WHAT CAN LOWER CONFIDENCE (RCT)

1. Risk of bias (results whereby the expected value of the results differs from the true underlying parameter, more than 30 types).

- **Study design bias and implementation bias.**
- Adequacy of allocation concealment, blinding, **loss to follow-up, stopping early for benefit, unvalidated outcome measures.**
- **Publication bias**; selective outcome reporting.
- **Researcher bias**: Selection bias, Observation bias.
- **Responders bias**: Hawthorne effect (people can modify their response when they are being observed), Recall bias (inaccuracy of information allocated from participants).

← في هاي المحاضره راح نحكي كيف بنقدر انه نقلل من الـ (CONFIDENCE)
وكيف بنقدر انه نرفع من الـــــ (confidence)

← لحتى نقلل الـ (confidence interval) او الي بنسميها الـ (strength of evidence)
اوالـ (strength of recommendation) .

← اول اشيء بنقللة عن طريق زياده الـــــ (Risk of bias) .

← معنى الـ (bias) ؟
هيَ الخلل او الخطاء الي بصير

← ف الـــ (Risk of bias) يقسم الى انواع :
① بأمكان هذا الـ (bias) يكون (bias) بـ الـ (study design)
و الـ (implementation bias) .
② (publication bias) .
③ (Researcher bias) .
④ (Responders bias) .

← يعني الـ (bias) الي بكون موجود هوه الي سببلنا الـ (confidence interval)
انه يكون قليل :

←① اول اشيء الـ (study design bias)

← يعني نفسها الـــ (methodology) المستخدمه بـ الـ (study design)
كان فيها خلل .

← بـ الـ (implementation bias) الطريقة الي تم تطبيق فيها هاي الـ (study) كان فيها خطاء ، مثلاً صار عنا في اسلوب الـ (blinding) ومعنى الـ (blinding) انه خلل الـ (study) بـ الـ (study design) او الـــ (implementation)
غض النظر عن الي عمل الـ (interventions) واغض النظر عن (measure concept) الي كان لازم ياخذها بعين الاعتبار خلال الـ (interventions) اوما عمل (interventions) بهاي الـ (participant) لـ (Follow-up)

← او نتيجة انه خلال الـ (early steps) لاحظنا انه صار عنا (benefit) وابتالي وقفنا و اعتمدنا على (benefit) ، يعني ما شفنا كيف الـ (intervention) على المدى الطويل ايش ممكن يصير فية ، او الاشياء الي (outcome measures) ، انه الـ (unvalidated outcome measures)

أخذناها بعين الاعتبار حتى نشوف هل الـ (intervention) هذا (successful) وابعملي (optimizations) للـ (patient health care) كان غير (١) او (٢) . كانت غير مزبوط ، ف الـ (outcome measures) كانت غير مزبوطة .

→ **Publication bias :-**

بتكون نفسها الـ (evidence) او الـ (studies) الي تعم دراستها فيها (bias) فيها خلل بتسميها الـ (Publication bias)

→ **Researcher bias :-**

انه نفس الشخص الي عمل الـ (research) عنده (bias) مثل الـ (study design bias) عمل (selection bias)

يعني مثلاً كانت الدراسة حول كبار السن ، راح أخذ مثلاً الي اعمارهم فوق الـ 45 سنة ، الـ (observation bias) انه خلال الـ (observation) أعتمد على (researcher) واحدة او قراءتين هذا الـ قراءة واحدة او قراءتين الأخرى ف هذا بتسمية كمل الـ (observation bias)

→ **Responders bias :-**

انه في بعض الأشخاص لما بتتبه انه في شخص تاني قاعد يراقبه بصير يغير في الـ (response) تبعة ، بتالي بيعطي (inaccuracy of information)

* ف احياناً بكون الـ (bias) من الـ (participants) انهم بيعطونا (inaccuracy information)

اول اشيء الـ (bias)

← بتالي الد سيناء الي بتعلل الـ (confidence)
والي عنده انواع متعددة .

WHAT CAN LOWER CONFIDENCE (RCT)

2. Inconsistency between different studies :

- Point estimates of the results vary widely across the studies.
- Confidence intervals shows minimal overlap.
- Statistical tests for heterogenicity are significant and differences are not explained.

← ثاني اشيء ممكن يقلل الـ (confidence) :

(consistency between studies) انه مابكون عندنا

يعني (study) معينة وجدت انو الـ (Beta-blocker) بيقلل من الـ (risk of MI) لناس الي [redacted] يستخدمة (over 10 year)

(study) ثانية وجدت انه لا مابقلل الـ (MI) ، بالعكس ممكن يزيدها وا ممكن يزيد الـ (mortality)

* ف هاي بصير عدم توافق مابين الـ (different studies)

عدم التوافق مابين (different studies) مابخلي عنا (overlaping) ما بين الـ (studies) لانه هاي الـ (study) وجدت شغلة والـ (study) الثانية وجدت شغلة ثانية مختلفة تماماً ، ف هذا كمان بقلل عنا الـ (strength of recommendation) والـ (strength of intervention) بتالي بقلل عنا الـ (confidence) .

WHAT CAN LOWER CONFIDENCE (RCT)

3. Indirectness:

- Patients, interventions, outcomes are similar to the target population for a given treatment.
- Indirect comparisons.

في اشيء عنا اسمة الـ (indirectness) ، هناها انا بدي اعمل
(health care intervention) من الطبيعي انه انا اعمل اشيء مختلف عن الي
اعمل ، مثلاً في دراسة معينة عن طريق الـ (systematic review for secondary puplucation)
شفنا دراسات معينة، [redacted] استخدمت هذا النوع من الـ (Drugs)
والـ (outcome measures) كانت 1 ، 2 .. 3 - - - etc
هلا انا مش من المعقول اجي انة احكي انا بدي اعمل نفس الـ (intervention)
وابنفس الاشياء و[redacted] احصل (outcome) مختلف
* في الـ (indirectness) انه الـ (patient) انه الـ (intervention) والـ (outcome)
همة (similar to the target population for a given treatment)
* بتالي [redacted] الـ (two population) لازم يكونوا مختلفات لحتى اقدر اقارنهم ببعض .

4. Imprecision (precision reflects how reproducible measurements are)

- **Assessment of the confidence intervals for the results.**

← معنى الـ (Imprecision) :

الـ (Imprecision) تختلف عن الـ (inaccuracy)

Imprecision	(inaccuracy)
انه احنا عنا (measurements) اكثر من قراءة ، والقراءات قريبة من بعض ، بغض النظر قديش هاي القراءات بعيدة عن الـ (target value)	انه في احنا عنا (target value) والـ (inaccuracy) انه الـ (value) الي انا طلعتها بعيدة عن الـ (target value)

* الـ (imprecision) بمعنى آخر انه الـ (points) الي انا حصلتها او الـ (outcome measures) لشغلة معينة حصلتها بـ الـ (participants) جداً متباعدة .

مثلاً استخدام الـ (Beta-blocker) بـ الـ (patient) الي بدهم يعملوا (non cardiac surgery) ، اخدت من عدد من الـ (participants) لاحظت بـ الـ (participant) الاولى انه الـ (mortality) زادت وبـ الـ (participant) الثانية انه الـ (mortality) زادت بس بنسبة أعلى من الاولى ، وبـ الـ (participant) الثالث الـ (mortality) قلت بنسبة معينة ، وبـ الـ (participant) الرابع قلت لكن بنسبة اكبر بكتير من الثالثة ، ف لاحظو كم هاي الـ (outcome measures) بعيدة عن بعضها البعض الي هوه مابين الـ (participant) ، ف هذا الشيء بخلي الـ (confidence interval) يحقل

WHAT CAN RAISE CONFIDENCE?

1. Large treatment effect

- Can rate up one level (twofold differences in Odds ratio (OR) or Relative Risk (RR).
- Up two levels (if fivefold differences in OR , RR).

- **Note:** OR and RR are measure of association between an exposure and an outcome.
  - The **OR** represents the odds that an outcome will occur given group compare to other group.
  - The **RR**: probability of an event occurring in one group compared to the probability of an event occurring in the other group.

← الحالات الي انا برفع فيهم الـ (confidence) همة حالتين :-

① الحاله الاولى بـ (Large treatment effect) :-

مثلاً احنا نعمل (study) معينة و استخدمت اعداد كبيره من الـ (participant) ولاحظنا انه الـ (effect treatment) كان ممتاز بجميع الـ (participant) في هاي الحالة بتسمية (Large treatment effect)

← لازم نعرف مصطلحين :-

← المصطلح الاول (OR) :- بتسمية (Odds Ratio) .

← المصطلح الثاني الـ (RR) :- بتسمية (Relative Risk)

← هدول المصطلحين هوه (measure) للـ (association) الي يكون مابين الـ (exposure) واما بين الـ (outcome) .

← يعني هدول بحسبولي كيف الـ (association) او الـ (relationship) ما بين الـ (exposure) واما بين الـ (outcome) .

← يعني عنا الـ (OR) من اسمة فهوه الـ (odds) للـ (outcome) الي صار بـ الـ (group) الاولى (compare) مع الـ (group) الثانية

← يعني استخدام الـ (Beta-blocker) بـ (patient) وابدهم يعملوا (non cardic surgary) ، كم احتمالية انه يصير عنده (stroke) بـ الـ (participant) group وقم واحد الي اعمارهم اقل من ٦٥ سنة و (group) الثاني اعمارهم اكثر من ٦٥ سنة ، كم احتمالية او الفرق في انه يحدث الـ (stroke) بـ الـ (group) الاولى مقارنه مع الـ (group) الثاني هاي مش الـ (probability) هاي الـ (odds)

← يعني كم الاختلاف الـ (outcome) انه يحدث في الاولى عن الثانية

← ولكن الـ (RR) :- يعني صار عنا (event) بـ الـ (group) الاولى كم احتمالية انه يصير بـ الـ (group) الثاني .

RR	(OR)
انه في عندي (risk) صار بـ الـ (group) الاولى كم احتمالية انه يصير بـ الـ (group) الثاني هاي بتسميها الـ (Relative Risk)	يعني (already event) حدث بـ الـ (group) الاول والـ (group) الثاني لكن همة قد يش بيختلفوا عن بعض هذا بتسمية الـ (odds)

* اي اختلاف بـ الـ (odds ratio) او بـ (Relative Risk) بأثر على الـ (confidence)

← اذا صار اختلاف بـ الـ (odds ratio) بعد ما دخلنا الـ (intervention) بـ (twofold) بزيد الـ (confidence) ← (1 level) .

← وبنفس الطريقة الـ (Relative Risk) .

← ولكن اذا الـ (difference) بـ الـ (odds ratio) بعد ما دخلنا الـ (intervention) بـ (fivefold) بزيد الـ (confidence) ← (2 level) .

← وبنفس الطريقة بالـ (Relative Risk) .

← هاي كيف نرفع الـ (confidence) اول اشئ عن طريق الـ

(large treatment effect)

WHAT CAN RAISE CONFIDENCE?

2. **Dose response relationship**

3. **Common criteria**

- Everyone used to do badly.
- Almost everyone does well.
- Quick action.

← نعاني اشيء لحتى نرفع الـ (confidence) عن طريق الـ

(Dose response relationship)

← هيه تعتبر من اقوى الدراسات .

← يعني الي بدرس أيش تأثير جرعة معينة بـ (different concentration) على (different types of participants) ، عند هم مثلاً (comorbid condition) هاي تعتبر من اقوى الدراسات الي بتزيد الـ (confidence)

← هلا ايش مشكلتنا في الـ (confidence) ؟

← الـ (confidence) حتى يزيد لازم تقريباً كل الـ (participants) يتعاملوا بنفس الطريقة

← هلا هوه شو بيكيلنا؟ بشكل ؛ اذا كل الـ (participants) تعاملوا جيد برفعلي الـ (confidence)

← اما اذا الـ (participants) واحد منهم تعاملي بشكل مختلف عن الآخر ، واحد اعطاني (inaccurate information) بس واحد ثاني اعطاني (accurate information) هذا الحكي بده يقلل عنا الـ (confidence) .

← في هاي الحالة لازم الي عمل (recommendation) لازم يؤخذ (Quick action) ، يعني لازم يحاول انه يقلل من الـ (bias) الاخطاء ما بين الـ (participants)

- قصه تحليل الخطاء يعتمد على الـ (participant)

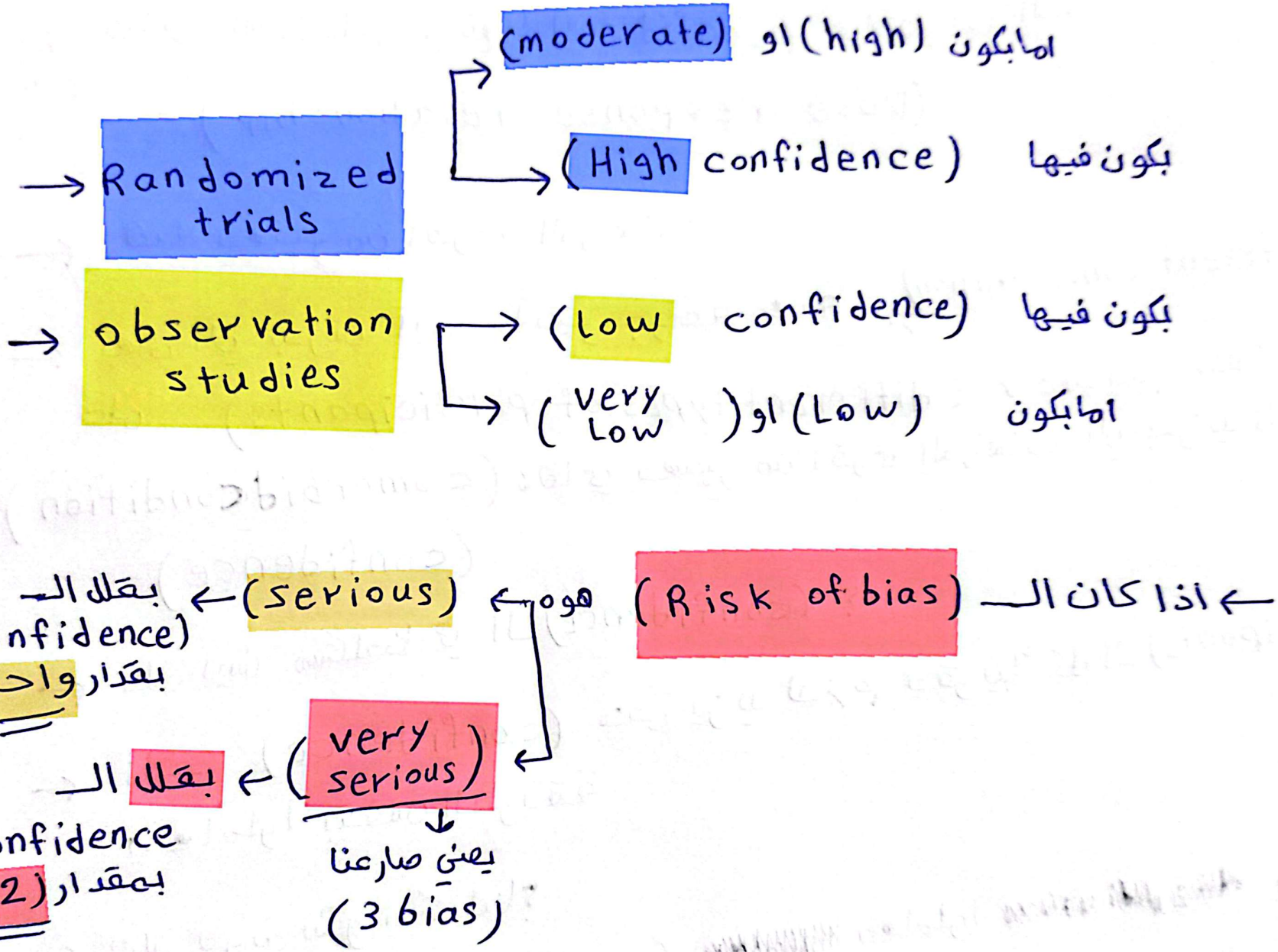
- بتالي في هذه الحالة أخذ اعداد اكبر من الـ (participant)
ممكن انة يحل المشكلة وايرفع الـ (confidence)

CERTAINTY ASSESSMENT CRITERIA

Study Design	Confidence in estimates	Lower if	Higher if
Randomized trials	High	Risk of bias -1 Serious -2 Very serious Inconsistency -1 Serious -2 Very serious Indirectness -1 Serious -2 Very serious Imprecision -1 Serious -2 Very serious Publication bias -1 Likely -2 Very likely	Large Effect +1 Large +1 Very large Dose response +1 Evidence of a gradient
	Moderate		
Observational studies	Low		
	Very Low		

هون كيف ترفع من ال confidence

هون كيف تنقلل من ال confidence


Randomized trials
(moderate) او (high) اما يكون
(High confidence) يكون فيها
observation studies
(low confidence) يكون فيها
(very low) او (Low) اما يكون
اذا كان الـ (Risk of bias)
هو (serious)
يقلل الـ (confidence) بمقدار واحد
(very serious)
يقلل الـ confidence بمقدار (2)
يعني صار عنا (3 bias)

STRENGTH OF RECOMMENDATION

➢ Strong recommendation

- Benefits clearly outweigh risks/hassle/cost.
- Risk/hassle/cost clearly outweighs benefit.

❖ what can downgrade strength?

- low confidence in estimates.
- close balance between up and downsides.

← الـ (strong recommendation) :

اذا الـ (recommendation) اعطاني الـ (outcomes) تبعة كان كثير صحيح ، بحيث انه الـ

← (benefits) كانت بتزيد على الـ (risks)

← اوكان (cost effectivness)

※ ← بتالي الـ (strength) تبع الـ (recommendation) يكون عالي .

← طيب ايش الي راح يقلل الـ (strength of recommendation) :

① اذا كان الـ (confidence in estimates) كان (Low confidence) .

② والـ (balance) كانوا اقراب من بعض ، يعني الـ (benefits) تقريباً نفس الـ (Risk) .

RISK/BENEFIT TRADEOFF

- Aspirin after myocardial infarction:
  - 25% reduction in relative risk .
  - side effects minimal, cost minimal.
  - benefit obviously much greater than risk/cost.

- Anticoagulants in low risk atrial fibrillation:
  - anticoagulants reduce stroke vs ASA by 50%.
  - increased bleeds by 1% per year.

← مثلاً استخدام الـ (Aspirin) لي (patient) عنده (MI) :-

← لاحظوا انه الـ (relative risk) قل بنسبة (25%) .

← ولاحظوا انه الـ (S/E) قليلة .

← ولاحظوا انه الـ (cost) قليل .

← ** بتالي بكون الـ (benefits) اكثر من الـ (Risk) .

← ** بتالي هذا يعتبر (Strong recommendation) .

← مثال ثاني :- استخدام الـ (Anticoagulants) بـ الـ (low risk atrial fibrillation) :-

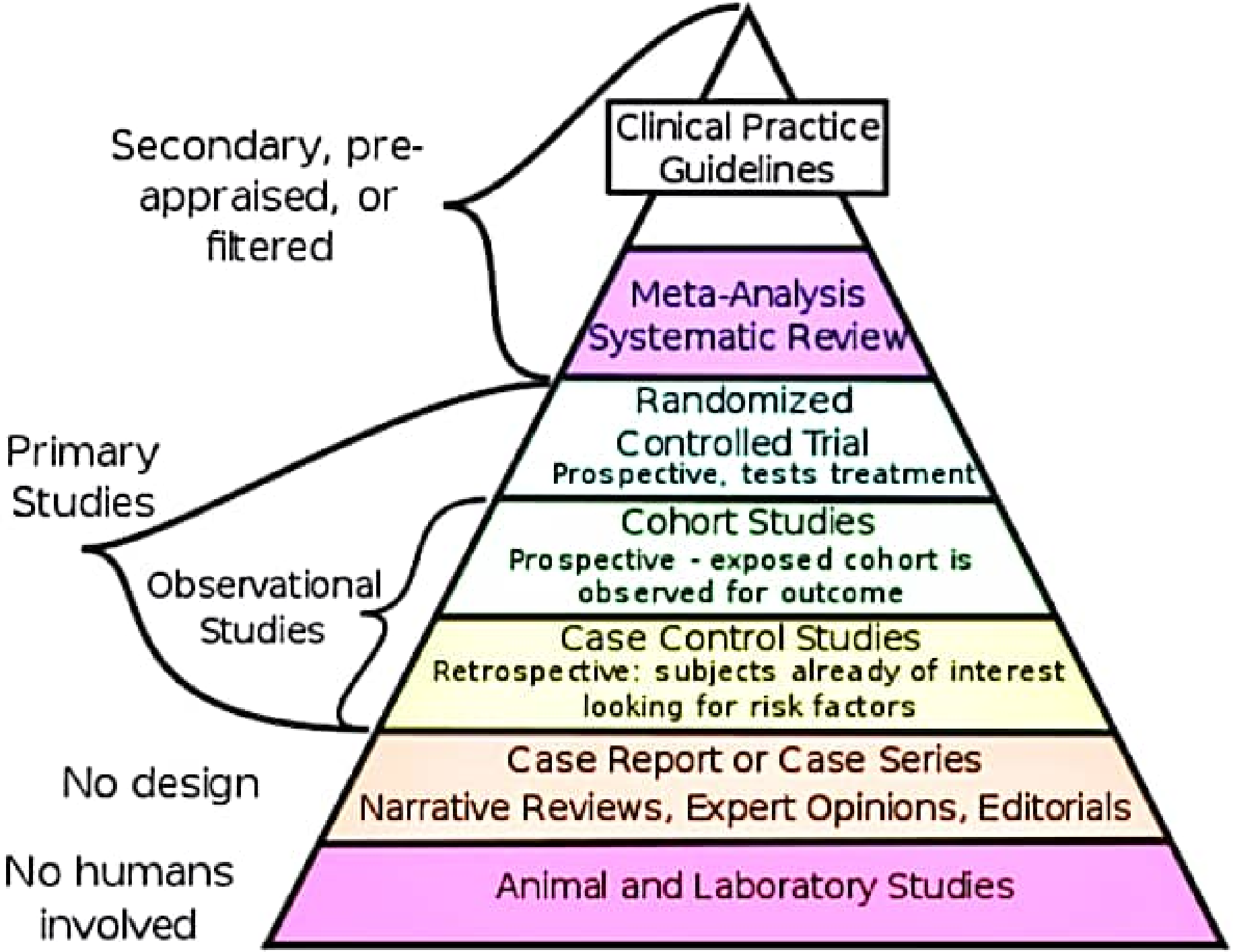
← لاحظوا انه صحيح قللت الـ (stroke) مقارنة مع الي ما اخذوا (Anticoagulants) بنسبة (50%) .

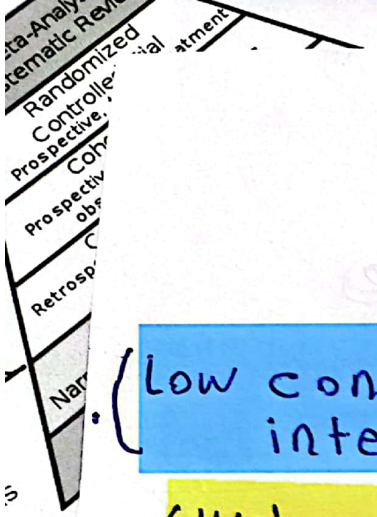
← هل هذا يعني انه الـ (Anticoagulants) احسن من الـ (Aspirin) ؟

(لا) ، لدنة لازم نطلع على (risk) .

← الـ (risk) انه زاد الـ (bleeding) بنسبة (1%) كل سنه

← ※ بتالي هون الـ (benefits) متوازنة او مساوية لـ الـ (risk) بتالي هون (not strong recommendation)





← الـ (studies) بتختلف حسب :-

← في عنا الـ (observational studies) و ا

(Randomized studies) ← في عنا الـ

← حكينا انو الـ (observational) ← بكون الها (low confidence interval).

← و الـ (Randomized) ← بكون الها (High confidence interval).

← الـ (study included) :-

← اول اشي بعملوا (Animal and lab studies)، طبعاً هاي (no humans involved).

← بعدين بيعملوا (case Report)، و هيه عباره عن (opinions)، و اهون ما في عنا (design).

← بعدين بتبلش عنا الـ (primary studies) اللي هيه :

- case control studies
- cohort studies
- Randomized studies

← بعدين بيلش عنا الـ (secondary studies) مثل Meta-analysis / Systematic Review

← وآخر اشيء بتم عن طريق دراسة كل هاي الانواع من الـ (studies) بنطلع الي هية الـ (clinical practice guidelines)

← ف هاي عباره عن الـ (studies)

الـ (confidence interval) للـ (studies) مختلفة

بأختلاف الأشياء الي تم دراستها

6. ARTICULATION OF RECOMMENDATIONS

- **Articulate recommendations in a standardized form, detailing precisely what the recommended action is, and under what circumstances it should be performed.**

- **Strong recommendations should be worded so that compliance can be evaluated.**

يعني قد بش هاي الـ (recommendation) هيَ (clear)

※ بتالي

recommendation action should be written in detail way, and should be precisely determine what's that recommended action

7. EXTERNAL REVIEW

- **External reviewers** should comprise a full spectrum of relevant stakeholders, including scientific and clinical experts, organizations, agencies, patients, and representatives of the public.
- The **authorship of external reviews should be kept confidential** unless that protection has been waived.
- The **GDG** should consider **all external reviewer comments** and keep a **written record of the rationale for modifying or not modifying** a CPG in response to reviewers' comments.
- A draft of the CPG prior to the **final draft should be made available to the general public for comment**.

← انه بعد ما ينكتب الـ (intervention) لازم يتم مراجعة ، من خلال الـ (representatives)

← مين الي براجعة ؟!

الـ (external reviews)

← مين هدول الـ (external reviews) ؟! الي همة مثل الـ (scientific and clinical exports) ، (organizations) ، (agencies) ، (patients) ، (representative of the public) .

8. UPDATING

1. **The CPG publication date, date of systematic evidence review, and proposed date for future review** should be documented in the CPG.

2. Literature should be monitored to identify the emergence of new, potentially relevant evidence and to evaluate the continued validity of the CPG.

3. **CPGs should be updated when new evidence suggests the need.**

(updating over time) ممكن يصير له (evidence) اي ←

(new evidence) وايظهر عنا الـ

※ بتالي ←

healthcare intervention and recommendation should be always updated

※ ← واي اشئ بصيرلة (updated) بطريقة الـــــ

(should be documented) ← (external comments)

New American Cancer Society Process for Creating Trustworthy Cancer Screening Guidelines JAMA (12/14/2011)

Standards for Clinical Practice Guidelines: Institute of Medicine (IOM) Recommendations and American Cancer Society (ACS) Process.

Standards	IOM Recommendations	New ACS Process for Cancer Screening Guideline Development
Transparency	The process and funding of guideline development should be completely specified	The article defines the new ACS process, and all ongoing an planned work in cancer screening guideline production and revison will be posted on the ACS website
Conflicts of interest	Conflicts of interest include commercial, institutional, professional, and intellectual conflicts, all of which must be openly declared. Members should divest conflicting financial relationships.	ACS guideline developers will publicly declare financial and institutional conflicts, and all will be expert generalists to avoid the appearance of professional conflicts
Group composition	The guideline group should include multidisciplinary methodologic al experts, clinicians, and patient advocates.	Guidelines will be developed by a 12-person panel of multidisciplinary experts in clinical screening, including a patient advocate
Systematic review of evidence	The guidelines should be based on systematic literature review that meets the standards set by the IOM.	ACS will commission high-quality and independent systematic evidence reviews to serve as the basis for all guidelines.
Grading strength of recommendations	For each recommendation, the text should explain the evidence and the reasoning, explain the balance of benefits and harms, an indicate the level of confidence in the recommendation.	ACS will be explicit about harms, as well as benefits, and will develop a grading scheme to rate confidence in recommendations that will be consistent with methods used by other organizations.
Articulation of recommendations	Recommendations should be clearly stated and actionable.	ACS guidelines will be written for audiences of primary care clinicians, the general public, and policy makers.
External review	The draft guidelines should be posted for public comment, and the final guidelines should be revised as appropriate before peer review.	Before publication, all draft guidelines will be vetted by relevant experts, organizations and societies, and any differences will be explicitly discussed in the published guideline.
Updating	Guidelines should be updated when new evidence should result in modifying the recommendations.	ACS guidelines will be briefly updated as needed, and at a minimum at least annually online with relevant new studies, and rewritten every 5 years.

Guideline Evaluation Tools

AGREE II (Appraisal of Guidelines for Research & Evaluation II) Instrument Clinical practice guidelines

* ليش بنعمل (evaluation) :

- The purpose of the AGREE II, is to provide a framework to:

1. Assess the quality of guidelines.
2. Provide a methodological strategy for the development of guidelines.
3. Inform what information and how information ought to be reported in guidelines.

- The AGREE II replaces the original instrument as the preferred tool and can be used as part of an overall quality mandate aimed to improve health care.

(tools) عن عبارة هيَ ، (new instrument) همّ استخدموا ←
(tools) الـ هاي اسم ، (guideline) الـ يحددوا لحتى ايستخدموها كانو
(AGREEII) هو

(AGREE II) عملوها الـ (evaluation) عملية الـ ←
item

Table 1. Comparison of original AGREE and AGREE II items.

Original AGREE Item	AGREE II Item
Domain 1. Scope and Purpose	
1. The overall objective(s) of the guideline is (are) specifically described.	No change
2. The clinical question(s) covered by the guideline is (are) specifically described.	The health question(s) covered by the guideline is (are) specifically described.
3. The patients to whom the guideline is meant to apply are specifically described.	The population (patients, public, etc.) to whom the guideline is meant to apply is specifically described.
Domain 2. Stakeholder Involvement	
4. The guideline development group includes individuals from all the relevant professional groups.	No change
5. The patients' views and preferences have been sought.	The views and preferences of the target population (patients, public, etc.) have been sought.
6. The target users of the guideline are clearly defined.	No change
7. The guideline has been piloted among end users.	Delete item. Incorporated into user guide description of item 19.
Domain 3. Rigour of Development	
8. Systematic methods were used to search for evidence.	No change in item. Renumber to 7.
9. The criteria for selecting the evidence are clearly described.	No change in item. Renumber to 8.
	NEW Item 9. The strengths and limitations of the body of evidence are clearly described.
10. The methods for formulating the recommendations are clearly described.	No change
11. The health benefits, side effects, and risks have been considered in formulating the recommendations.	No change

(AGREE II item) , (original AGREE item) * لاحظوا انه في اشياء اتغيرت ما بين الـ واما بين

Original AGREE Item	AGREE II Item
12. There is an explicit link between the recommendations and the supporting evidence.	No change
13. The guideline has been externally reviewed by experts prior to its publication.	No change
14. A procedure for updating the guideline is provided.	No change
Domain 4. Clarity of Presentation	
15. The recommendations are specific and unambiguous.	No change
16. The different options for management of the condition are clearly presented.	The different options for management of the condition or health issue are clearly presented.
17. Key recommendations are easily identifiable.	No change
Domain 5. Applicability	
18. The guideline is supported with tools for application.	The guideline provides advice and/or tools on how the recommendations can be put into practice. AND Change in domain (from Clarity of Presentation) AND renumber to 19
19. The potential organizational barriers in applying the recommendations have been discussed.	The guideline describes facilitators and barriers to its application. AND change in order – renumber to 18
20. The potential cost implications of applying the recommendations have been considered.	The potential resource implications of applying the recommendations have been considered.
21. The guideline presents key review criteria for monitoring and/ or audit purposes.	The guideline presents monitoring and/ or auditing criteria.
Domain 6. Editorial Independence	
22. The guideline is editorially independent from the funding body.	The views of the funding body have not influenced the content of the guideline.
23. Conflicts of interest of guideline development members have been recorded.	Competing interests of guideline development group members have been recorded and addressed.

) Rating Scale

All AGREE II items are rated on the following 7-point scale:

1 Strongly Disagree	2	3	4	5	6	7 Strongly Agree

(Score of 1 (*Strongly Disagree*). A score of 1 should be given when there is no information that is relevant to the AGREE II item or if the concept is very poorly reported.)

(Score of 7 (*Strongly Agree*). A score of 7 should be given if the quality of reporting is exceptional and where the full criteria and considerations articulated in the User's Manual have been met.)

Scores between 2 and 6. A score between 2 and 6 is assigned when the reporting of the AGREE II item does not meet the full criteria or considerations. A score is assigned depending on the completeness and quality of reporting. Scores increase as more criteria are met and considerations addressed. The "How to Rate" section for each item includes details about assessment criteria and considerations specific to the item.

· (7-point scale) اعطو هم (AGREE II items) في الـ ←

(1) → (original item) الـ & (Strongly Disagree) كم همة (AGREE II items) هدول الـ

(7) → (original item) الـ & (Strongly Agree) هوو

COMPUTERIZED GUIDELINES

- **Computerized guidelines encode evidence-based recommendations for and can automatically generate recommendations about what medical procedures to perform tailored for an individual patient.**
- **Computerized guidelines offer benefits over and above those offered by paper-based guidelines:**

1. **They offer a readily accessible reference, providing** selective access to guideline knowledge.
2. **They help** reveal errors in the content of a guideline.
3. **They help** improve the clarity of a guideline, **e.g. in decision criteria and clinical recommendations.**
4. **They** help offer better descriptions of patient states.
5. **They can** automatically propose timely, patient-specific decision support and reminders.

هي بتكون specific for patient معين

=(more accessible) ←

. (errors اقل) ←

. ال(clarity) اعلى ←

. (patient specific) واضحة ←

SOURCES OF CLINICAL PRACTICE GUIDELINES

- **National and international clinical guidelines organizations:**

http://www.guideline.gov

http://www.openclinical.org/guidelines.html#comput

paper based هدول لكن حلو هم على computer الـ

e-Guidelines

- Clinical guideline applications for handheld devices [OC]

- Canadian Diabetes Association e-guidelines (2003) (web-browsable)

browsable)

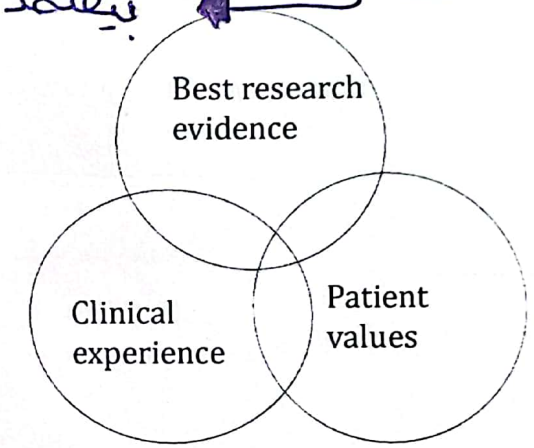
* فلحتى اعتبر هذا الـ (evidence) انه (strong) وا (good) يجب ان يحتوي على هدول الـ ٣ اقسام

(Evidence-based practice involves)

بيعتمد على ٣ اقسام :-

هوه احسن اشي بصير على الـ (humans)

1. Best research evidence: Clinically relevant research that has involved patients.
2. Clinical expertise: Using clinical skills and past experience.
3. Patient values: Unique preferences, concerns, expectations.



To support clinical / therapeutic decisions.
With the aim to ensure optimal outcomes for the patients.

→ (هدول كلهم overlab لحتى يعطوني the best clinical and therapeutic decision.

LEVELS OF EVIDENCE FOR THERAPEUTIC STUDIES

هاي الـ (therapeutic studies)

❖ Level Type of evidence

- 1A Systematic review (with homogeneity) of RCTs.
- 1B Individual RCT (with narrow confidence intervals).
- 1C All or none study.
- 2A Systematic review (with homogeneity) of cohort studies.
- 2B Individual Cohort study (including low quality RCT, e.g. <80% follow-up).
- 2C "Outcomes" research; Ecological studies (studies of risk-modifying factors).
- 3A Systematic review (with homogeneity) of case-control studies
- 3B Individual Case-control study.
- 4 Case series (and poor quality cohort and case-control study).
- 5 Expert opinion without explicit critical appraisal or based on physiology bench or basic research or "first principles".

← انواع الـ (evidence) اللي كان مستخدم بـ الـ (therapeutic studies) اذا شفنا هاي الارقام، نكون عارفين ايش نوع هاي الـ (therapeutic studies)

LEVELS OF EVIDENCE FOR PROGNOSTIC STUDIES

← هون الـ (level of evidence) بيختلف باختلاف الرموز

هاي الـ (prognostic studies)

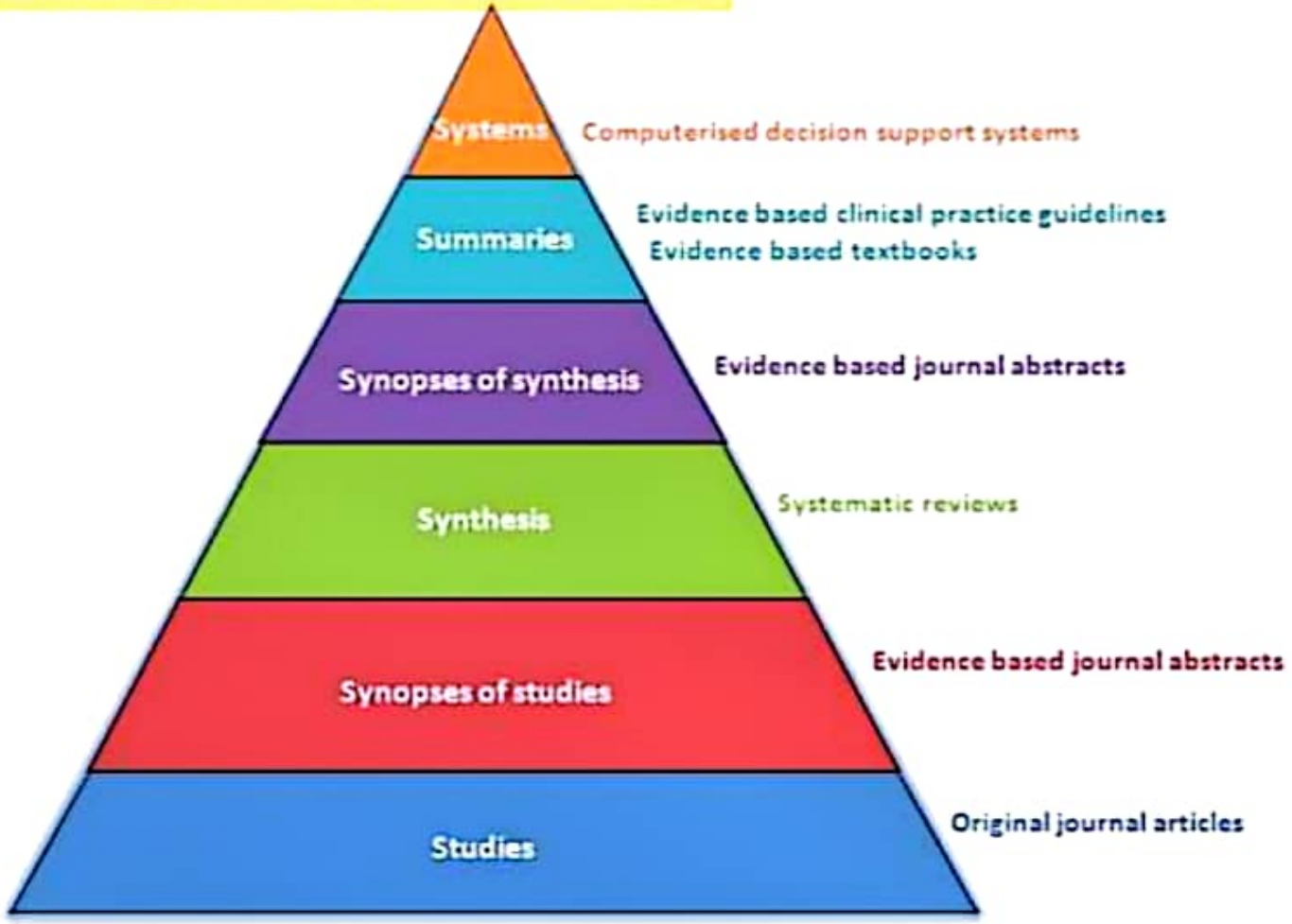
❖ Level Type of evidence

- I High quality prospective cohort study with adequate power or systematic review of these studies.
- II Lesser quality prospective cohort, retrospective cohort study, untreated controls from an RCT, or systematic review of these studies.
- III Case-control study or systematic review of these studies.
- IV Case series.
- V Expert opinion; case report or clinical example; or evidence based on physiology, bench research or "first principles".

← هون استخدموا الارقام الرومانية

(Therapeutic studies)	prognostic studies
انو انا هلا درست تأثير ال (metformin) على المرض	(prognosis) انو كيف صار الـ متبع هذا المرض
(therapeutic studies) ← هاي بنسميها	(after using different concentration of metformin) ← هاي بنسميها الـ (prognostic studies)

Most Recent update of the Evidences, The 6S Hierarchy of Evidence Based Resources



EXAMPLES OF SUMMARIES INCLUDE

- Clinical Evidence (www.clinicalevidence.com).
- The Physicians' Information and Education Resource (http://pier.acponline.org).
- Dynamed (www.ebscohost.com/dynamed/default.php).
- UpToDate (www.uptodate.com).
- Another source of summary-level data are clinical practice guidelines (CPGs).
- National and international clinical guidelines organizations:
  - http://www.guideline.gov
  - http://www.openclinical.org/guidelines.html#comput
- e-Guidelines
  - Clinical guideline applications for handheld devices [OC]
  - Canadian Diabetes Association e-guidelines (2003) (web-browsable)

← هاي المواقع الي بتساعدنا انو نعمل (summaries) لي (different studies)

SYNOPSES OF SYNTHESES

- لازم (synopses of syntheses) لحتى اعمل *

- Generally one-page (1), concise (2), user-friendly (3) assessment, and summary of the evidence.
- (4) (This type of article is generally published in evidence based.)
- Abstraction journals such as Evidence Based Nursing , International Journal of Evidence-Based Healthcare , Evidence-Based Mental Health , and ACP Journal Club .

لحتى نعمل syntheses بنستخدم ←

قديل الزعبي