

UiT

**THE ARCTIC
UNIVERSITY
OF NORWAY**

EVIDENCE-BASED PRACTICE

Library Skills: Accessing Evidence

Ved
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LÆRINGSMÅL

- Vite hva Kunnskapsbasert praksis innebærer
- Kjenne til styrker og svakheter ved ulike informasjonskilder
 - Hva slags/type (form) informasjon som trenges
 - Hvordan å søke – Systematiskesøk (PICO)
 - Hvor å søke
- Ha kunnskap om trinnene i kunnskapsbasert praksis

What is Evidence-Based Practice?

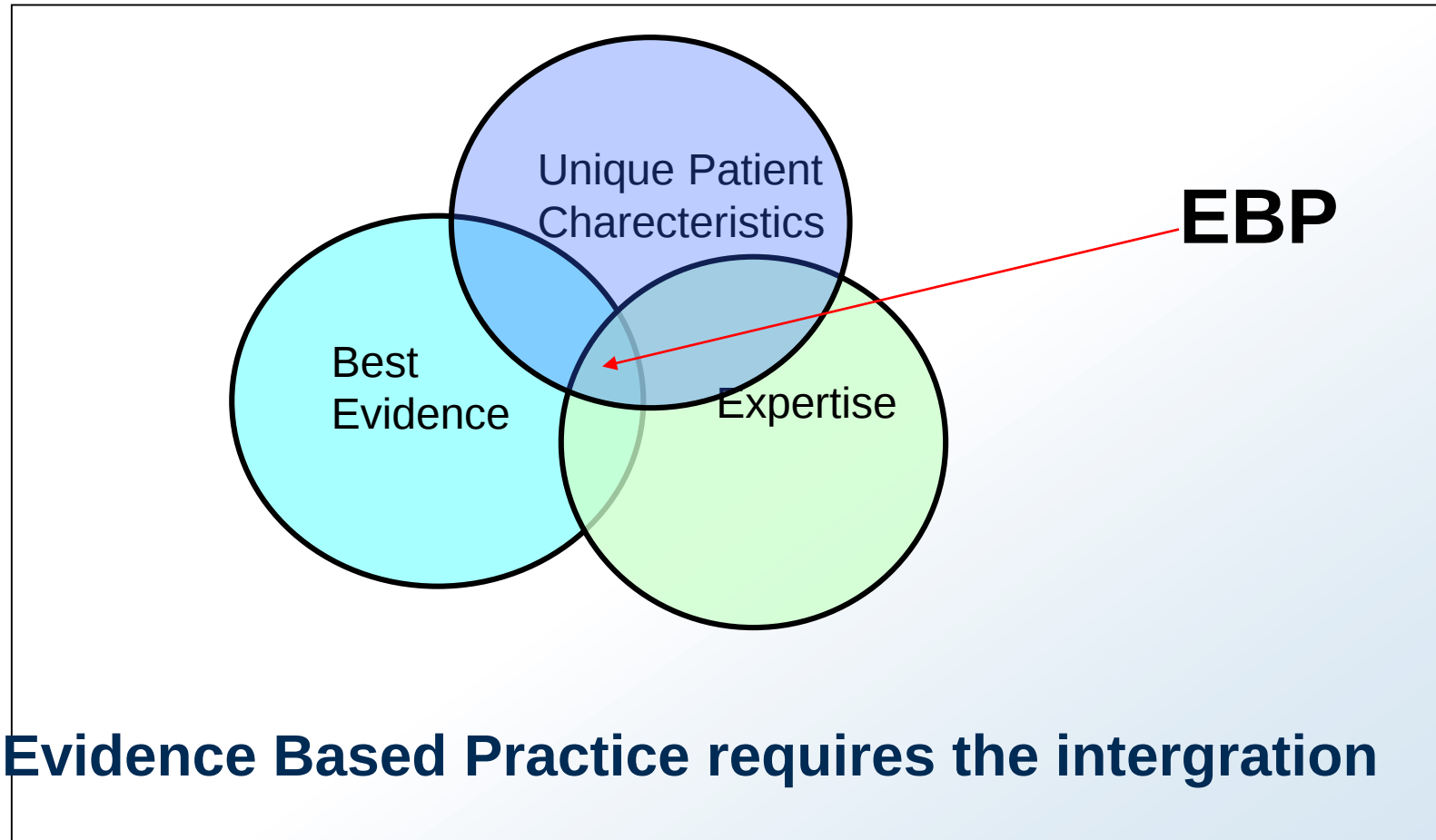
- Evidence Based Practice requires the integration of the best research evidence with clinical expertise and our patient's unique values and circumstances

Adapted from: Evidence-Based Medicine How to Practice and Teach EBM. Straus et al 3rd edition 2005

- Helsepersonell må daglig ta faglige beslutninger.

Kunnskapsbasert praksis (KBP) er å ta faglige avgjørelser basert på systematisk innhentet forskningsbasert kunnskap, erfaringsbasert kunnskap og pasientens ønsker og behov i en gitt situasjon.

Evidence Based Practice



The 5 A's of EBP

**Assess
the patient**

**Ask clinical
questions**

**Acquire
the best evidence**

**Appraise
the evidence**

**Apply
evidence to patient care**

EBP Background (why?)

- Current Clinical Research must be:
 1. Comparative (Most important)
 2. Pre-planned

- Without valid and reliable comparisons between 2 or more groups, health care would be driven by:
 - Opinions
 - Observations
 - Current procedures

Rather than by true Scientific advances!

Main reasons why health care provided does not reflect knowledge (barriers).

1. Person approach such as forgetfulness or carelessness
2. The other approach focuses on systems and how they contribute to errors (Reason, 2000).

To achieve science-based care, two principle barriers must be addressed:

- ✓ The complexity of knowledge (including volume)
- ✓ The form of available knowledge

1. Complexity of Knowledge

- The growing complexity of science and technology is one obstacle in moving research rapidly into practice care
- "No unaided human being can read, recall and act effectively on the volume of clinically relevant scientific literature" (IOM, 2001, P.25).

2. Form of Knowledge

- Not only is the volume of literature a problem, but the form of knowledge too
- Literature contains a variety of knowledge forms, many of which are not suitable for direct practice application

EBP SOLUTION

- Evidence summaries, including systematic reviews and other forms, reduce the complexity and volume of evidence by integrating all research on a given topic into a single, meaningful whole.

The Medical Literature

Original Research

Experimental studies

- Randomized controlled trials (RCT)
- Controlled Trials

Observational studies

- Cohort studies
- Case control studies
- Case reports

Reviews of Original Research

Meta analyses

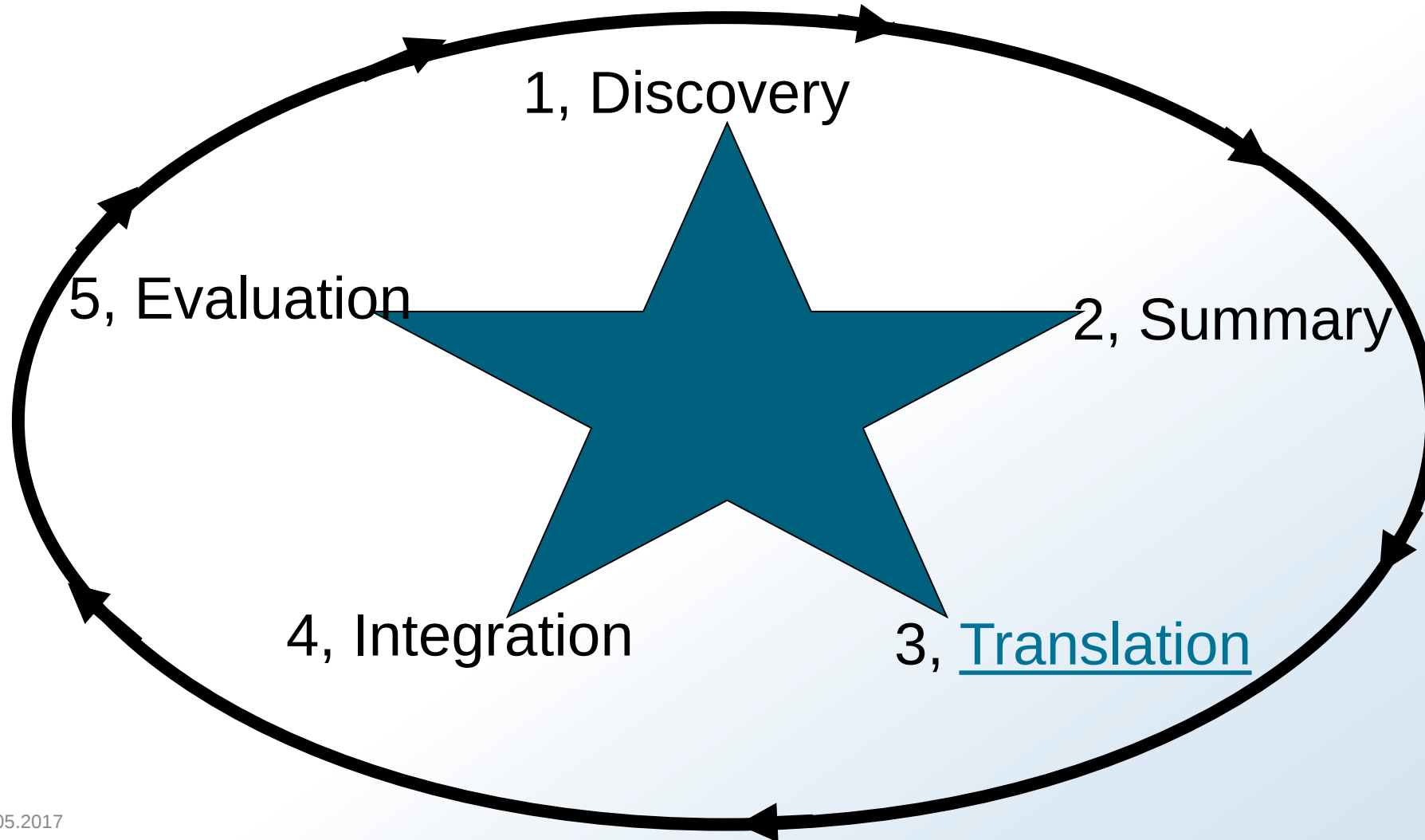
- Systematic reviews
- Practice guidelines
 - Guidelines
 - Upgraded guidelines

Where do you find the best Evidence?

- Cochrane Library?
- PubMed/MEDLINE?
- CINAHL?
- EMBASE?
- BMJ Best Practice?
- DARE?
- The AHRQ Innovations Exchange?
- UpToDate?
- National Guideline Clearinghouse (NGC)?
- Joanna Briggs?
- SamSearch?
- Pedro?
- OTseeker?
- Textbooks?
- Google?



ACE STAR MODEL OF KNOWLEDGE TRANSFORMATION



Formulate a Clinical Question

Why PICO?

- The PICO format is probably the most familiar format to “Formulate the Burning Clinical Question”

Why formulate a clinical question?

...to yield the most relevant and best evidence

To get the most relevant information, one has to formulate a **focused clinical** question

PICO example

P = patient population or problem

heart failure patients

I = intervention of interest or interest area

daily weights

C = comparison intervention or status

weights twice a week

O = outcome

decreased number of hospital admissions

Practice Worksheet

e.g. Article

What is the best type of study to answer a research or clinical question?

- Systematic Reviews (SR)?
- Randomised Control Trials (RCT)?
- Cohort studies?
- Case report?

The search of the best Evidence should begin with an SR (Evidence Summaries) or Meta-analyses and Evidence- based Clinical Practice guidelines (strongest evidence level) (Guyatt and Rennie 2002)

The Evidence ladder

**When you look for the evidence...
Choose those which are higher on the evidence pyramid.**



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What is a Systematic Review (Evidence Summaries)

- An article in which the authors have systematically searched for, appraised, and summarized all of the medical literature for a specific topic
- En oversiktsartikkel der forfatterne har brukt en systematisk og eksplisitt framgangsmåte for å finne, vurdere og oppsummere alle relevante studier om samme emne

(Centre for Evidence Based Medicine Oxford <http://cebm.net>)

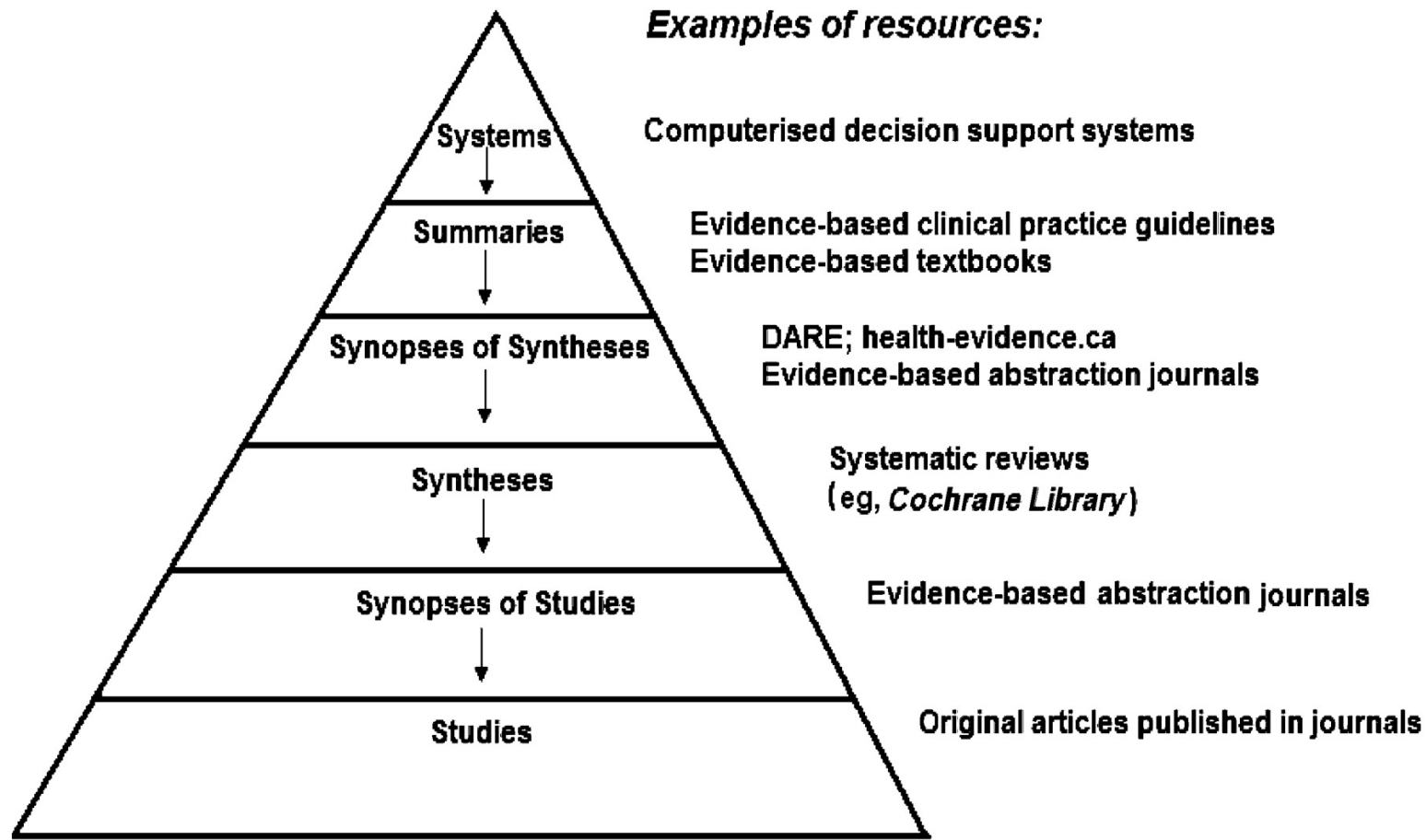
Oversiktsartikler (Reviews)

Et arbeid som slår sammen resultater og konklusjoner i to eller flere publikasjoner på et gitt emne

Systematic Review

- Focuses on a **specific clinical topic**
- Conducts a **thorough review of the existing literature**
- **validates quality** of the studies
- Inclusion and exclusion **criteria**
- **summarizes** the data

The 6S hierarchy to pre-appraised evidence



Cochrane Library

- Umbrella term for several databases
- Systematic Reviews : full text
- Therapy and diagnosis
- Electronic (Easy to search/Very User Friendly)
- Updated regularly
- Menu driven

Support bridging the gap between researcher and clinicians

Encourages Knowledge exchange!

- Limited skills of practitioners in accessing and appraising evidence (Oliver, Nicholas & Oakley, 1996).
- The gap between research and practice is ubiquitous in all fields, not only health
- “Push” research into practice – researchers get involved in implementation of research findings
- “Pull” research into practice – policymakers, managers and clinicians get involved in prioritisation and planning of research
- Way forward for development of the National Clinical Practice Guidelines = fagprosedyre.....

WAY FORWARD EVIDENCE-BASED PRACTICE: ACTION PLAN

Quality Research Information and Search Skills: EBP Project Facilitation

Target:

- Students and staff at the institute (IKO)
- Health practitioners/clinicians – (TkNN/UTK)

- Outcomes:-**
- A.** Functioning System in place (EBP-group in place)
Information Search Skills Acquired (1 – 2 years)
 - B.** Active Journal Club in place (Tverrfaglig)
Skills for searching & Critically Appraising Evidence Acquired (2years)

AGREE

- Evaluation:-** Bullet proofing. Finding out criticisms and try to find out solutions together (After ca. 3 – 4 years)

**Takk for
oppmerksomheten!**