Development and evaluation of the ESHRE Endometriosis Management Guideline

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LEARNING OBJECTIVES

At the conclusion of this day, participants should be able to:

1. **Summarize the development, updating and level of evidence associated with clinical guidelines in general**
2. **Apply the ESHRE guidelines for clinical management of endometriosis in their own clinical practice**
3. **Explain why many clinical issues with respect to endometriosis management are still unresolved and require more and better research.**

Why guidelines?

55% of adults receive recommended care

45% receive treatment they do not need, or are not given treatment they do need

Asch et al, NEJM 2006

"Hysterectomies are still performed too often, on too many patients, unnecessarily"

Sir Liam Donaldson, Chief Medical Officer UK, 2006

Guideline

A principle put forward to set standards or determine a course of action.

Advice – counsel – direction – help – instruction – teaching – intelligence – lead – steer – direct – educate – oversee

The Collins Concise Dictionary of English Language, Glasgow: William Collins & Sons Co Ltd, 1988.

Guidelines

The methodology for development of high-quality guidelines requires that the recommendations should be evidence-based.

Appleyard et al, BJOG 2006

Evidence

- *n.* that which makes evident

Evident

- *a.* visible; clear to the vision; obvious

What is evidenced-based medicine?

- The practice of medicine based on the best available evidence
- EBM should be rational and logical, involving the application of common sense
- EBM is not solely the application of randomized controlled trials or meta-analyses
  - EBM ≠ RCT
- EBM considers both benefits and risks

Why evidence-based medicine and guidelines?

- A desire to do no harm and what is best
  - Evidence-based is evidently best
- A response to peer and other external pressures
  - Clinical governance
  - Risk management
- A coping strategy for dealing with information overload in clinical medicine

Evidence-based medicine

- Evidence-based medicine provides an environment in which physicians and patients can critically and objectively appraise clinical practice
- Creation of guidelines is the natural endpoint of evidence-based medicine
- Evidence-based medicine has limitations which should be acknowledged

Danish National Guidelines

"cases of minimal and mild endometriosis should be referred to and treated centrally in each county"

and

"cases of moderate to severe endometriosis, patients with disseminated disease such as recto-vaginal endometriosis, retro-peritoneal endometriosis or endometriosis on the bowels should be referred to one of two country centres of excellence: Copenhagen County Hospital Services (the County Hospital in Glostrup) and Aarhus University Hospital (Skejby Hospital)".

Guidelines in Endometriosis

ESHRE guideline for the diagnosis and treatment of endometriosis

Stephen Kennedy[1,9], Agneta Bergqvist[2], Charles Chapron[3], Thomas D'Hooghe[4], Gerard Dunselman[5], Robert Greb[6], Lone Hummelshoj[7], Andrew Prentice[8] and Ertan Saridogan[8] on behalf of the ESHRE Special Interest Group for Endometriosis and Endometrium Guideline Development Group*

The Proposal

Minutes ESHRE SIG Endometrium and Endometriosis Meeting

Madrid, June 30th 2003, 1-2 PM

.....A draft for Guidelines on Endometriosis was presented by P. Koninckx on behalf of P. Koninckx, L Hummelshoj, A. Prentice. This draft had not been circulated before. It was agreed that the draft would be mailed by Lone Hummelshoj to all participants and that their feedback would be requested before August 19th 2003. It was also agreed that a further meeting would be organized later this year to discuss a new draft of the guidelines, incorporating the feedback of all interested participants. Only participants who formally forward their comments regarding the guidelines will be invited to this meeting. In the meantime, the meeting has been set for September 12th, 2003, in Leuven, Belgium.....

Initial Guideline Development Group

• Agneta Bergqvist	Karolinska Institutet (S)	Chair
• Charles Chapron	Clinique Universitaire Baudelocque (F)	Working party
• Gerard Dunselmann	Maastricht University (NL)	Working party
• Robert Greb	Münster University Hospital (D)	Working party
• Thomas D'Hooghe	Leuven University Hospital (B)	Working party
• Lone Hummelshoj	EEA (DK)	Working party
• Stephen Kennedy	University of Oxford (UK)	Report writer
• Philippe Koninckx	Universities of Leuven & Oxford (B)	Contributor
• Roberto Matorras	País Vasco University (E)	Contributor
• Michael Müller	University of Berne (CH)	Contributor
• Andrew Prentice	University of Cambridge (UK)	Working party
• Ertan Saridogan	University College London (UK)	Working party
• Juan Garcia-Velasco	Instituto Valeciano Infertilidad (E)	Contributor

Guideline Development Group

Gerard Dunselmann	Maastricht University (NL)	*Chair 2005-2007* *Working party*
Andrew Prentice	University of Cambridge (UK)	*Chair 2007-2010* *Working party*
Charles Chapron	Clinique Universitaire Baudelocque (F)	*Working party*
Robert Greb	Münster University Hospital (D)	*Working party*
Thomas D'Hooghe	Leuven University Hospital (B)	*Working party*
Daniela Hornung	UFK Lübeck (G)	*Working party*
Lone Hummelshoj	European Endometriosis Alliance (DK)	*Working party*
Stephen Kennedy	University of Oxford (UK)	*Working party*
Ariel Revel	University of Jerusalem (IS)	*Working party*
Ertan Saridogan	University College London (UK)	*Working party*

Methodology (I)

- Working group convened
- Review of existing evidence-based guidelines and systematic reviews
- Three meetings to develop and refine guideline
- Guideline available for comment on the ESHRE website for 3 months
- Ratification by working group by unanimous or near-unanimous voting
- Approval by the ESHRE Executive Committee
- Published in *Human Reproduction* Oct 2005

Methodology (II)

Annual update process

- Systematic review of publications 1966-2007
- 1st half of year: updates and distribution to working group
- June: working group convened: ratification by working group unanimous or near-unanimous voting
- Guideline available for peer review on the ESHRE website for 2 months
- http://guidelines.endometriosis.org
  updated each year in October (last time 2008)

Sources (I)

- Cochrane Library and the Cochrane Register of Controlled Trials were searched for relevant RCTs, systematic reviews and meta-analyses.
- MEDLINE and PUBMED search from 1966 – Feb 2007.

In addition:

- Clinical Evidence – the monthly, updated directory of evidence on the effects of clinical interventions, published by the BMJ Publishing Group (UK)

Sources (II)

- NICE Guideline on the assessment and treatment of people with fertility problems, produced by the National Institute for Clinical Evidence (UK)
- Guideline on the diagnosis and treatment of endometriosis, produced by the Dutch Society of Obstetrics and Gynaecology (NL)
- Consensus statement for the management of chronic pelvic pain and endometriosis, produced by a group of US gynecologists (US)
- Green Top Guideline on the investigation and management of endometriosis, by the Royal College of Obstetricians & Gynaecologists (UK)

Recommendation: hierarchy of evidence

Level	*Evidence*
1a	Systematic review and meta-analysis of randomized controlled trials (RCTs)
1b	At least one RCT
2a	At least one well-designed controlled study without randomization
2b	At least one other type of well-designed quasi-experimental study
3	Well-designed, non-experimental, descriptive studies, such as comparative studies, correlation studies or case studies
4	Expert committee reports or opinions and/or clinical experience of respected authorities

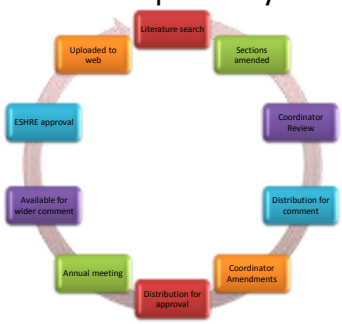
15 october 2009

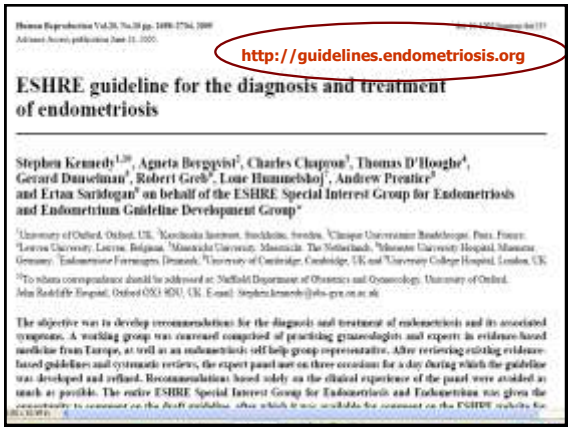
Recommendation: strength of evidence

Grade	*Strength of evidence corresponding to each level of recommendation*
A	Requires at least one randomized controlled trial as part of a body of literature of overall good quality and consistency addressing the specific recommendation. (Evidence levels 1a, 1b)
B	Requires the availability of well controlled clinical studies but no randomized clinical trials on the topic of recommendations. (Evidence levels 2a, 2b, 3)
C	Requires evidence obtained from expert committee reports or opinions and/or clinical experiences of respected authorities. Indicates an absence of directly applicable clinical studies of good quality. (Evidence level 4)
GPP	Recommended best practice based on the clinical experience of the guideline development group

15 october 2009

Annual Update Cycle





http://guidelines.endometriosis.org

ESHRE guideline for the diagnosis and treatment of endometriosis

Stephen Kennedy[1,20], Agneta Bergqvist[2], Charles Chapron[3], Thomas D'Hooghe[4], Gerard Dunselman[5], Robert Greb[6], Lone Hummelshoj[7], Andrew Prentice[8] and Ertan Saridogan[9] on behalf of the ESHRE Special Interest Group for Endometriosis and Endometrium Guideline Development Group*

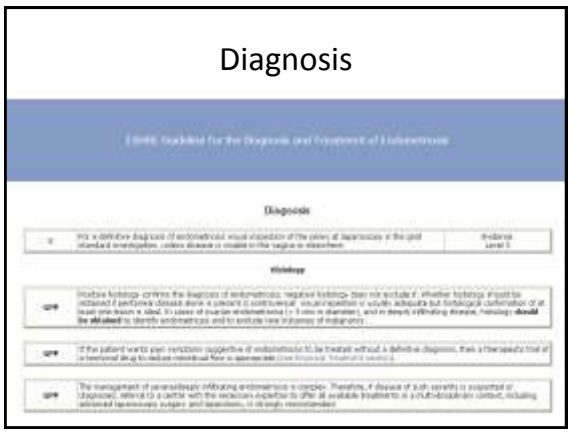
[1]University of Oxford, Oxford, UK, [2]Karolinska Institutet, Stockholm, Sweden, [3]Clinique Universitaire Bretonneau, Paris, France, [4]Leuven University, Leuven, Belgium, [5]Maastricht University, Maastricht, The Netherlands, [6]Muenster University Hospital, Muenster, Germany, [7]Endometriosis Foreningen, Denmark, [8]University of Cambridge, Cambridge, UK and [9]University College Hospital, London, UK

[20]To whom correspondence should be addressed at: Nuffield Department of Obstetrics and Gynaecology, University of Oxford, John Radcliffe Hospital, Oxford OX3 9DU, UK. E-mail: Stephen.kennedy@obs-gyn.ox.ac.uk

The objective was to develop recommendations for the diagnosis and treatment of endometriosis and its associated symptoms. A working group was convened comprised of practising gynaecologists and experts in evidence-based medicine from Europe, as well as an endometriosis self-help group representative. After reviewing existing evidence-based guidelines and systematic reviews, the expert panel met on three occasions for a day during which the guideline was developed and refined. Recommendations based solely on the clinical experience of the panel were avoided as much as possible. The entire ESHRE Special Interest Group for Endometriosis and Endometrium was given the

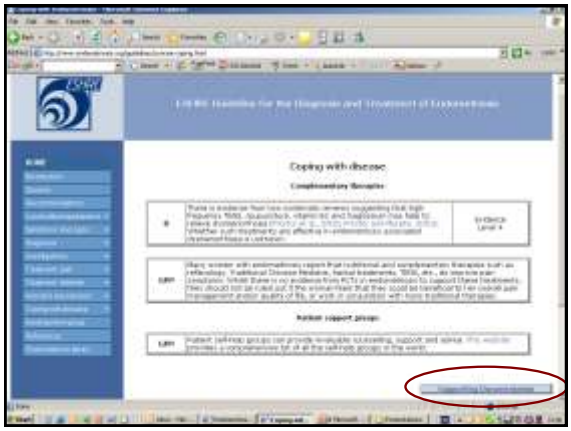
ESHRE Guidelines

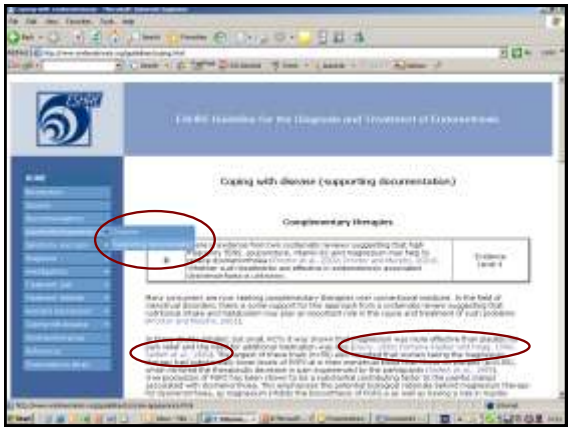
Diagnosis

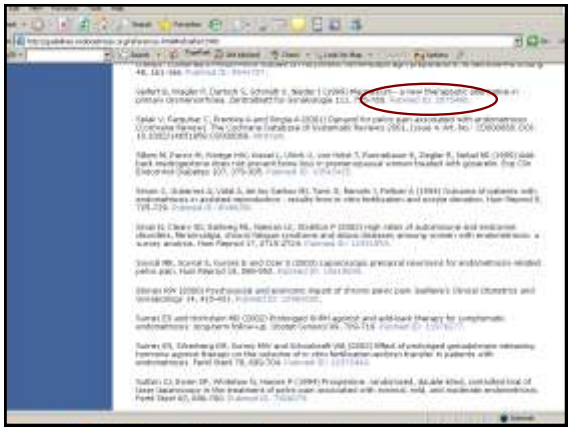


Diagnosis

Empirical Treatment







ESHRE guideline: user-friendly

- Concise evidence based recommendations
- Documentation of supporting recommendations
- Full reference link
- References linked to PubMed

ESHRE guideline: THE FUTURE

- Clinicians will use or adapt it for local use
- National organizations may adopt it
  - Dutch Society for Obstetrics and Gynaecology
  - Royal College for Obstetrics and Gynaecology
  - Japanese and Spanish translations (Turkish)
  - Brazil
  - Argentina
- Consolidation of feedback from users
- Regular ongoing review and modification
  - Annual (June ratification --> review --> October implementation)

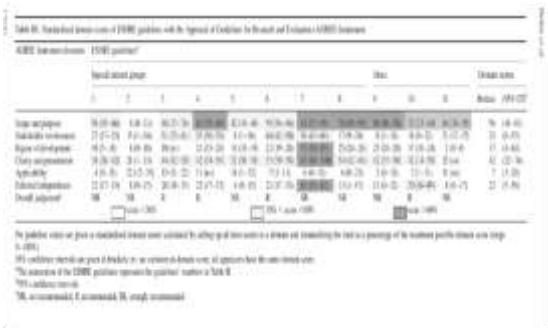
ESHRE Endo Guideline Status 2009

- 2008-2009: review of guideline
- eGLIA assessment of guideline quality (paper in preparation)
- Guideline course for GDG members 4/2009
- In collaboration with ESHRE SIG Quality in Repro Med
- ESHRE Endometriosis Guideline rated as BEST ESHRE Guideline based on objective criteria (Human Reproduction, 2009)

ESHRE GUIDELINES FOR ENDOMETRIOSIS: HIGHEST QUALITY AMONGST ESHRE GUIDELINES

The methodological quality of clinical guidelines of the European Society of Human Reproduction and Embryology (ESHRE)

W.L.D.M. Nelen[1,3], R.W. van der Pleijm[1], R.P.M.G. Hermens[1], C. Bergh[2], P. de Sutter[4], K.G. Nygren[2], A.M.M. Wetzels[1], R.P.T.M. Grol[1] and J.A.M. Kremer[1]

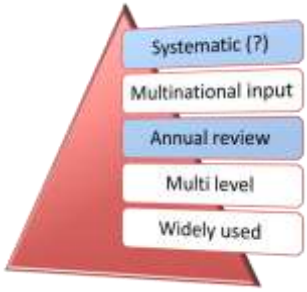


ESHRE GUIDELINE POLICY

- GUIDELINES FOR THE DEVELOPMENT OF ESHRE GUIDELINES
- MANUAL MADE BY SIG QUALITY OF ART
- TEACHING WORKSHOP ATTENDED IN APRIL 2009 BY 4 MEMBERS OF ESHRE GUIDELINE DEVELOPMENT GROUP (Prentice, Dunselman, Hummelshoj, D'Hooghe)
- ESHRE GDG meeting in Leuven, January 2010

SWOT Analysis

Strengths



Weaknesses

Opportunities

Threats

Effect on Strengths

SWOT	Potential Benefit	Realised Benefit
Systematic	A systematic approach is specified within the guideline manual. The manual will provide each contributor with clear guidance on the procedure to follow	Training April 2009; Meeting Leuven January 2010
	Search strategy will be better defined	In progress
	Hierarchy of evidence will be more strictly applied	None yet
Annual Review	The manual gives a clear time frame for the production and expected revision of guideline. A realistic time frame with a specified life is likely to result in a more carefully produced and maintained guideline	None Yet

Effect on Weaknesses

SWOT	Potential Benefit	Realised Benefit
Deadlines not met	Timeframe specified by ESHRE	None yet
Inconsistent approach	A systematic approach is specified within the guideline manual. The manual will provide each contributor with clear guidance on the procedure to follow The approach be symptomatic should be consistent between contributors	None yet
Poorly Scoped	The current guideline content evolved after review of existing guidelines. Little thought was given to correct formulation of questions or the scope of the guideline	As part of the application process the guideline has been properly scoped. Formulation of questions done at Leuven Meeting January 2010 after all national endometriosis patient groups have been approached to ensure patient involvement in the identification of relevant questions

Formulation of Questions

- Existing guideline questions were sometimes poorly formulated
- Systematic process (PICO Framework,Leuven meeting January 2010)
  - Patients
  - Interventions
  - Comparison
  - Outcome
- Consulting stakeholders for questions

Effect on Opportunities

SWOT	Potential Benefit	Realised Benefit
Interest in Guidelines	Guideline groups can incorporate experts in guideline development	The endometriosis group have recruited a member of the Nijmegen group to assist with the development of the guideline
	It is proposed that ESHRE employ individuals skilled in literature searching to support each guideline group	None yet

Effect on Threats

SWOT	Potential Benefit	Realised Benefit
Complacency	With a well defined time frame, external commissioning and a restricted life before review individuals are less likely to become complacent or to remain involved if they lose interest	At present all existing guideline group members have been given the chance to read the manual, be aware of what is expected of them and commit to the revision having been fully informed
Lack of rigour	The clear guidance on the process to be followed should ensure a systematic approach	None yet
Stagnation	The clearly defined timeframes for production and revision of guideline with the scope of new individuals being responsible for revision should avoid stagnation	None yet

Conclusions

- The application of the ESHRE manual for guideline development offers a significant opportunity to improve the ESHRE guideline during its current revision
- Utilisation of a previously performed SWOT analysis has identified at least 8 areas where the application of the guideline manual process will deliver benefits
- Even at an early stage in development the use of the guideline has resulted in identifiable benefits (translated, used, appreciated as “best” ESHRE guideline)
- Further benefits resulting from the application of the manual are becoming apparent (ie PICO format)
  - Involvement of more widespread patient involvement