Anpassung von Leitlinien aus anderen Ländern – Evidenz und Entscheidung

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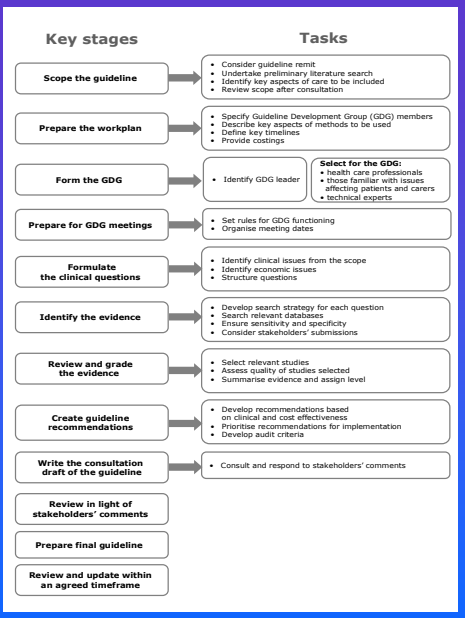
- Leitlinien
  (the social nature of guidelines)
- Evidenz
  (global evidence and local knowledge)
- Entscheidung
  (value judgements and consensus procedures)
- Anpassung
  (Fervers et.al. IJQHC 2006;167-176)

A guideline is an intermediate text product, resulting from social processes in which evidence and opinions are synthesized and valued with the aim to induce improvement in health care delivery.

- formalizing synthesis of evidence
  (systematic review, meta-analyses, grading of evidence)
- formalizing generating value judgements
  (nominal/delphi group processes, group compositions)
- formalizing guideline development

A Summary of key stages of NICE guideline development (for developers)



Generalizability of global evidence for local guidelines

- limitations through the dominance of bio-medical paradigm
- reduction of diversity through research designs and scientific social processes (gender, age, ethnicity, SES)

Table 3.1. Consideration of subgroups in RCTs on Diabetes 1 and 2, Hypertension, Epilepsy and AIDS published in two leading medical journals (Lancet, and JAMA), 2000-2004 (N = 51 studies).

Number of studies	Diabetes 1 (5)[€]	Diabetes 2 (10)[€]	Hypertension (17)	Epilepsy (6)	AIDS (13)
• Average percentage men in population	65	69	49	50	58/ 44[Ω]
• Percentage studies including children below 18 years	60	0	0	100	50[Σ]
• Percentage studies including elderly above 65 years	20	90	94	17[£]	8[Σ]
• Percentage ethnicity defined?	20	30	71	0[¥]	39
• Percentage studies with age used as inclusion/exclusion criteria (yes-no)	100	100	100	50	69
• Percentage studies with sex-related inclusion-exclusion criteria, such as pregnancy, menopause (yes-no)	80	10	24	0	85[Φ]
• Percentage studies with subgroup analysis for sex	20	10	35	17	8
• Percentage studies with subgroup analysis for age	20	10	35	17	8
• Percentage studies with subgroup analysis for ethnicity	0	0	18	0	0

€ One study has been counted twice (for diabetes I AND II), because this study included both diabetes I and II.

£ One study contained unclear information on maximum age of participants. Guideline states 12-65 yrs, but in the informative table it is stated that participants are 12-72 yrs --> Chadwick 1999)

¥ 'Ethnicity' not explicitly mentioned in any of the trial papers, but 2 out of 6 studies have been carried out in rural India.

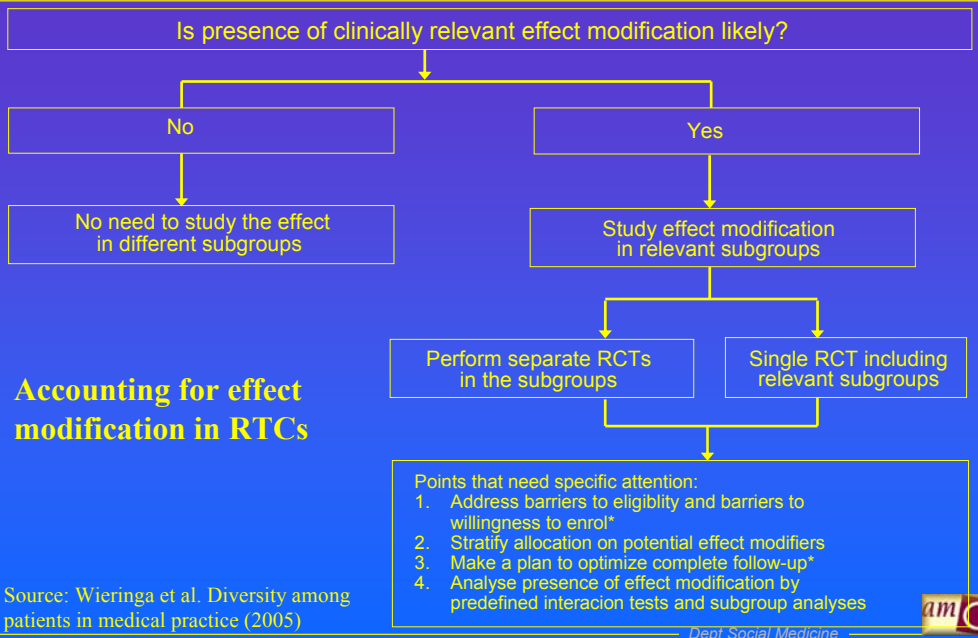
Ω 3 out of 13 studies are one-gender-only (only pregnant women). The first percentage given is therefore calculated for only mixed-gender studies, the second percentage is calculated for all studies (including the women-only studies).

Σ Of the 13 studies, three studies do not report on whether participants <18 yrs are included in the trial, of the studies that do report on this fact, 50% include children below 18. The same goes for adults >65 yrs old. Only one study explicitly states that adults over 65 yrs old are included. For 8 of the thirteen studies it is not possible to determine whether persons over 65 yrs old have been included. One study included only children (2-17 yrs old).

Φ Including 3 one-gender-only studies (only pregnant women)

Potential sources of effect modification

Potential effect modifying factors	Examples
Study design characteristics	Setting, patients, co-medication, study duration, measurements and method used for measurements, completeness of follow-up, methodological quality of the study
Patient characteristics	Age, gender, ethnicity, biochemical markers, genetic polymorphism
Disease characteristics	Method and sensitivity of diagnosis, severity of disease, staging and biological response
Intervention characteristics	Application, route, dosing, intensity, time point of treatment, duration and compliance



Accounting for effect modification in RTCs

Source: Wieringa et al. Diversity among patients in medical practice (2005)

Does a similar global evidence-base result in similar national/ local guidelines?

Inside guidelines: comparative analysis of recommendations and evidence in diabetes guidelines from 13 countries

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Diabetes Care; 2002;25;11:1933-1939

Table 1. Basic characteristics of selected guidelines

	Country (ID code)	*Organisation responsible for guideline development*	*Title in English*	*Year of publication*
1.	Denmark (DK)	Danish College of General Practitioners	Non insulin demanding diabetes – NIDDM. A practical guidance for therapists	1996
2.	England (EN)	East London Clinical Guidelines Project. Department of General Practice and Primary Care	Clinical guidelines for the management of diabetes in East London	1996
3.	Finland (FI)	Finnish Diabetes league	Type II diabetes clinical guideline	1994
4.	France	Agence Nationale d'Accréditation et d'Evaluation en Santé (ANAES)	a. Strategy for monitoring of type 2 diabetics, excluding monitoring of complications	1999
			b. Strategy for management of type 2 diabetics, excluding management of complications	2000
5.	Italy (IT)	Italian Society for Diabetology	Diabetes mellitus. Practical guide for diagnosis and treatment	1997
6.	The Netherlands (NL1)	Dutch Institute for Healthcare Improvement CBO	Guidelines diabetic nephropathy and cardiovascular diseases with diabetes mellitus	1998
7.	The Netherlands (NL2)	Dutch College of General Practitioners	NHG-guideline diabetes mellitus	1999
8.	Scotland (SC)	Scottish Intercollegiate Guidelines Network (SIGN)	Management of diabetic cardiovascular disease	1997
9.	Spain (SP)	Catalan Society of Primary Care	Guideline on treatment of diabetes mellitus type 2 in primary care	1996
10.	Switzerland (SW)	University Hospital of Geneva	Detection of diabetes mellitus. Guidelines for the outpatient's clinic	1996
11.	Australia (AU)	NSW (New South Wales) Health Department	Improving diabetes care and outcomes. Principles of care and guidelines for the clinical management of diabetes mellitus	1996
12.	New Zealand (NZ)	New Zealand Guidelines Group	Guidelines for the management of core aspects of diabetes care.	1999
13.	Canada (CA)	Canadian Medical Association	Clinical practice guidelines for the management of diabetes in Canada	1998
14.	USA (US1)	American Diabetes Association	Standards of medical care for patients with diabetes mellitus	2000
15.	USA (US2)	Institute for Clinical System Improvements	Management of Type 2 diabetes mellitus	2000

Box 2. Essentials in management of diabetes mellitus type 2

1. *General principles*
- diet, weight control
- exercise
- smoking cessation
- education

2. *Treatment of hyperglycemia*
- target levels glucose and HbA_{1c}
- oral drugs
- insulin

3. *Treatment of cardiovascular risk*
- target levels blood pressure and lipids
- drug treatment raised blood pressure
- use of cardiovascular risk tables
- preventive use of aspirin

4. *Monitoring*
- blood pressure
- blood and urinary investigations
- self-monitoring

Box 3. Shared recommendations for management of Type Two diabetes mellitus

Diet:	all diabetics should be offered dietary advice. A desirable diet should be low in sugar, fat content and overall calories
Weight control:	overweight/obese patients should be offered weight management
Exercise:	exercise (in combination with diet) is an essential part of the management
Smoking:	diabetic patients should stop smoking to reduce cardiovascular risk
Education:	education of patients is desirable to promote good diabetic control
Hyperglycemia:	poor glycemic control should be tackled using diet alone, oral medication, and insulin progressively, unless acutely unwell.
Glycemic monitoring:	HbAic is suitable for long-term monitoring
Blood pressure:	screening and treatment of raised blood pressure is recommended
Renal disease:	screening and treatment of microalbuminuria is recommended
Hyperlipidemia:	screening and treatment of hyperlipidemia is recommended
Self-monitoring:	if on insulin, self monitoring of blood glucose is recommended

Box 4. Recommendations with 'minor' variation

BMI used to define obesity: Range 25 - 30.

Target HbA_{1c} : Range 6.5 - 7,5%

Metformin as first choice oral treatment in obese

Addition of a second oral agent to maximum doses of an initial agent

Sulphonylureas or biguanides in patients of normal BMI

Use of ACE inhibitors in those with hypertension and renal disease

Aspirin use in secondary prevention of cardiovascular disease

Box 5. 'Major' variation between recommendations

Length of trial of diet and exercise before oral treatment: range 2 - 9 months

Use of alphaglucosidase inhibitors: widely varying indications for this medication

Combination of insulin and oral medication: widely varying combinations suggested. No consensus on the value or indications for combination treatment.

Target BP: range <130/85 - <160/90

First line medication for raised BP: no consensus on a first-line drug; wide choice given

Aspirin use as primary prevention in 'high risk': widely differing opinions on its value

Targets for lipid control: widely differing targets given (e.g. total cholesterol 4.5 - 6.5 mmol/l)

Frequency of monitoring: e.g. HbA_{1c} 1-4 /year

Self-monitoring of blood glucose: contradictory if controlled with diet or oral medication

Routine annual ECG: recommended or not

Table 2. Size of the guideline, number and linkage of references

ID Code	*Number of pages*	*(estimated) WSPC**	*Total number of references*	*References linked to recommendations*
DK	19	10.3	0	NA
EN	36	24	40	yes
FI	55	36	1	no
FR	312 (151+161)	238 (115+123)	422	yes¶
IT	350	285	218	no
NL1	164	34.8	246	yes
NL2	18	13.7	190	yes
SC	21	12.5	77	yes¶
SP	85	39	95	yes
SW	3	2.0	2	no
AU	92	43.8	65	no
NZ	19	6.2	44	yes
CA	29	30.3	302	yes¶
US1	??	??	??	no
US2	52	26	67	yes¶

* WSPC = word standardised page count: total number of words divided by 400.
† complete (selected) bibliography ¶ including levels of evidence

Table 3. Shared references by number of citations.

ID code	*Number of selected references*	*Number of shared references*	*% shared references*	*Weighted shared score (ranking)*
EN	30	16	53.3	21.8 (4)
FR1/2	422	86	20.4	16.0 (10)
IT	83	26	31.3	15.2 (12)
NL1	127	54	42.5	18.8 (7)
NL2	132	59	44.7	20.6 (5)
SC	56	24	42.9	18.1 (8)
SP	73	29	39.7	15.5 (11)
AU	12	8	66.6	24.3 (3)
CA	158	73	46.2	19.6 (6)
NZ	25	14	56.0	33.5 (2)
US1	171	73	42.7	18.1 (8)
US2	57	36	63.2	35.3 (1)
total	*1346*	*498*	*37.0*	

Table 4. Countries of authors of citations (%)

ID Code	UK/ IR	FR	IT	NL	SP	CA	AU/ NZ	USA	Scan	Other	Multi-national	Un-known
EN	37	---	---	---	---	---	10	27	23	---	---	3
SC	39	4	---	2	---	---	2	23	23	5	---	2
FR1/2	11	11	4	3	---	4	2	38	11	11	1	4
IT	6	1	30	---	---	1	---	41	4	2	4	10
NL1	13	1	3	18	1	1	---	32	21	6	2	1
NL2	13	1	1	36	---	1	3	24	12	10	---	0
SP	11	1	---	1	11	---	3	51	11	7	1	3
CA	13	1	3	1	---	6	3	45	17	7	1	5
AU	17	8	---	---	---	---	8	67	---	---	---	0
NZ	40	---	---	---	---	---	16	16	12	16	---	0
US1	9	1	3	1	---	1	1	59	18	5	1	2
US2	14	2	---	---	2	2	2	63	7	5	2	2
total	*11.8*	*5.2*	*4.7*	*7.1*	*1.0*	*2.7*	*2.6*	*40.4*	*11.8*	*7.8*	*1.3*	*3.8*

Table 5. Coverage and evidence of three specific clinical areas in 14 diabetes guidelines

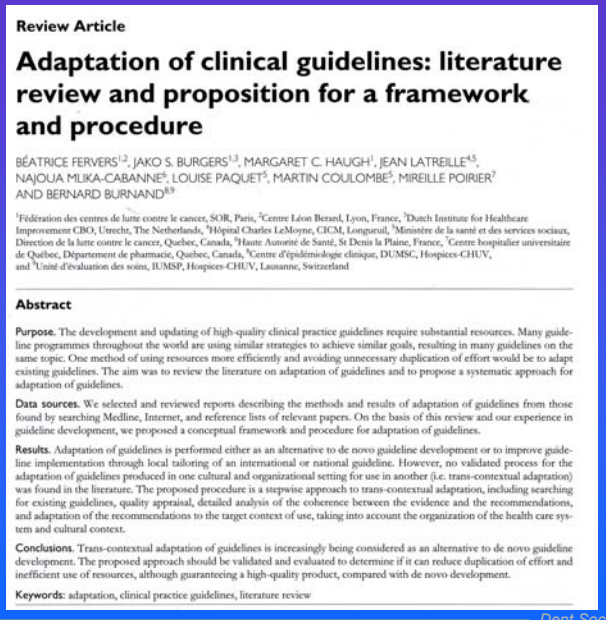
	number of guidelines			*number of citations*	
	area covered	supported with evidence	citations linked to recommendations	linked citations	shared citations
use of metformin	11	7	5	19	4
aspirin for secondary prevention	8	7	5	13	3 (5*)
self monitoring of blood glucose	9	7	5	20	1 (8†)

* including citations in review of Yudkin

† including citations in review of Faas

Potential bias

- Selection workgroup members
- Selection central questions
- Conceptualizations of diseases
- Searching literature
- Judging literature
- Phrasing recommendations
- Guideline by-products (leaflets, review-criteria, indicators



Review Article

Adaptation of clinical guidelines: literature review and proposition for a framework and procedure

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Abstract

Purpose. The development and updating of high-quality clinical practice guidelines require substantial resources. Many guideline programmes throughout the world are using similar strategies to achieve similar goals, resulting in many guidelines on the same topic. One method of using resources more efficiently and avoiding unnecessary duplication of effort would be to adapt existing guidelines. The aim was to review the literature on adaptation of guidelines and to propose a systematic approach for adaptation of guidelines.

Data sources. We selected and reviewed reports describing the methods and results of adaptation of guidelines from those found by searching Medline, Internet, and reference lists of relevant papers. On the basis of this review and our experience in guideline development, we proposed a conceptual framework and procedure for adaptation of guidelines.

Results. Adaptation of guidelines is performed either as an alternative to de novo guideline development or to improve guideline implementation through local tailoring of an international or national guideline. However, no validated process for the adaptation of guidelines produced in one cultural and organizational setting for use in another (i.e. trans-contextual adaptation) was found in the literature. The proposed procedure is a stepwise approach to trans-contextual adaptation, including searching for existing guidelines, quality appraisal, detailed analysis of the coherence between the evidence and the recommendations, and adaptation of the recommendations to the target context of use, taking into account the organization of the health care system and cultural context.

Conclusions. Trans-contextual adaptation of guidelines is increasingly being considered as an alternative to de novo guideline development. The proposed approach should be validated and evaluated to determine if it can reduce duplication of effort and inefficient use of resources, although guaranteeing a high-quality product, compared with de novo development.

Keywords: adaptation, clinical practice guidelines, literature review

Step	Examples
***Step 1* – Definition of the clinical questions** to be included in the final guideline, taking into consideration the following criteria (PIPOH): • Patient population (including disease characteristics) Intervention(s) of interest • Professionals/patients (audience for whom the guideline is prepared) • Outcomes to be taken into consideration (purpose of the guideline) • Healthcare setting and context	Guidelines on colon cancer treatment • Adult population • Chemotherapy • Medical oncologists • Survival, quality of life • Secondary & tertiary care
***Step 2* - Search for source guidelines:** • Use guideline resource databases, websites of guideline developing organisations, bibliographic databases and search engines. • Define and use search criteria like language, date of publication and type of publisher. • Use population (P) and intervention (I) terms in the search strategy.	Use of 1. general databases (e.g., NGC, G-I-N, NICE)*, and 2. cancer related sources (e.g., NCCN, ASCO, SOR-FNCLCC)*
***Step 3* - Assess clinical content of the source guidelines:** • Compare the clinical questions covered by the guidelines with the clinical questions of interest as defined in step 1.	• Lack of specific guidelines for elderly patients and of 3rd line chemotherapy recommendations
Step 4* - Evaluation of the quality and coherence of the source guidelines:** • Evaluate global quality (AGREE instrument) • Evaluate methods for studies research and selection • Evaluate, ***for each clinical question to be included in the final guideline: o currency of the literature search o coherence between evidence and recommendations o applicability and acceptability of the recommendations to the context of use	• Use of 4/6 subscales of AGREE (shorter and avoids redundancy) • Use of ad hoc questionnaire to examine appropriateness of compared chemotherapy regimens, control of bias, directness of evidence in studies quoted by CPGs • Availability of resources and interventions (e.g. drug licence)
***Step 5* – Adaptation of the recommendations:** • For each clinical question, adaptation will vary in intensity: from adoption as is, through translation, reformulation (with justifications), reformatting, literature update to de novo development	• Use of ad hoc questionnaire to examine systematically the application of each treatment in the new context
***Step 6* - External review of the adapted guideline: (similar as in guideline development de novo)**	• Experts belonging to a regional network of oncologists
***Step 7* – Adoption, endorsement and implementation of the adapted guideline** (Similar as for de novo guideline development)	• Provincial network for cancer treatment

* NGC: National Guidelines Clearinghouse; G-I-N: Guidelines International Guidelines; NICE: National Cancer Institute; NCCN: National Comprehensive Cancer Institute; ASCO: American Society of Clinical Oncology; SOR-FNCLCC: Standards, Options, Recommandations – Fédération Nationale des Centres de Lutte Contre le Cancer

Figure 1 Sequential process for the trans-contextual adaptation of guidelines.