

Evidence in Practice Project

Rafael Perera, David Mant, Karen Kearley, Emma Meats, Janet Harris, Paul Glasziou

Hypertension guideline recommendations in UK General Practice: survey of awareness, agreement, adoption and adherence

Carl Heneghan MA, MRCGP

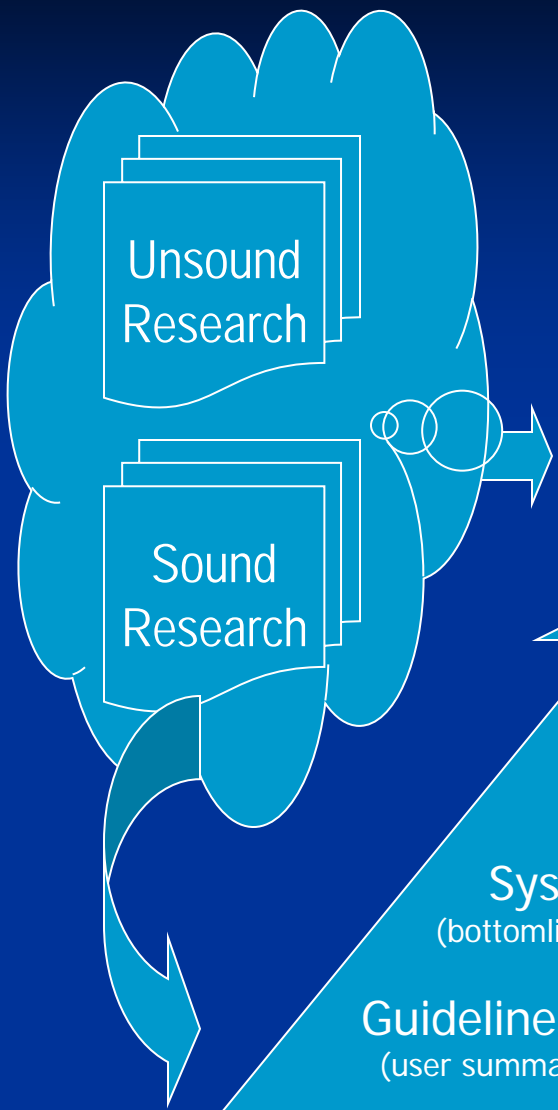
Centre for Evidence Based Medicine

University of Oxford





Background



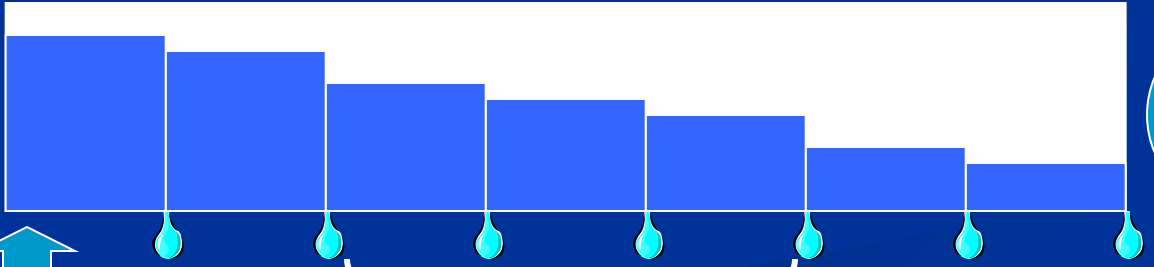
Evidence-Based Medicine

- Questioning
- Skills in EBM
- Evidence Resources
- Time (substitution)

Patient Choice

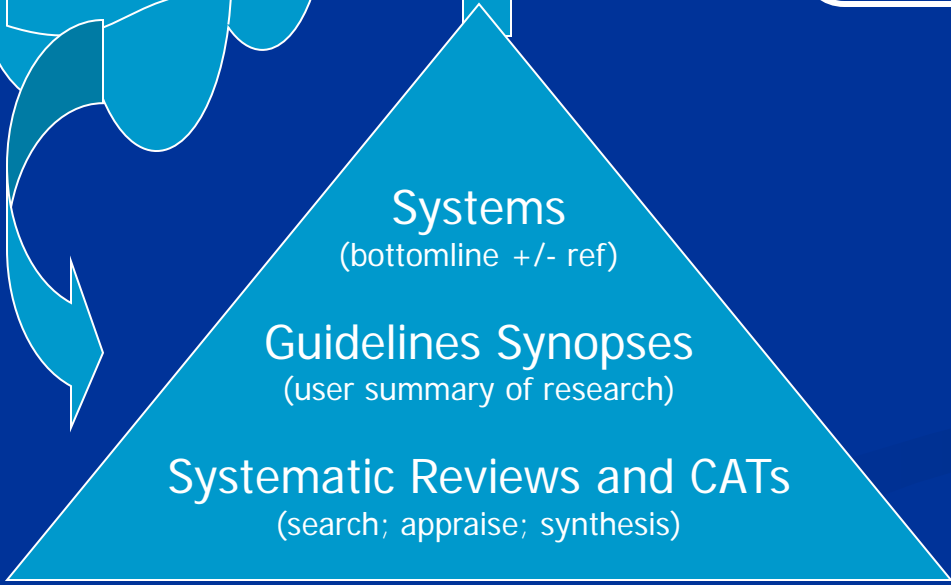
- Decision Aids
- Education
- Self-monitoring
- Self-management

Aware Accepted Applicable Able Acted on Agreed Adhered to



Quality Improvement

- Skills
- Systems




Evidence-Based Medicine

- Questioning
- Skills in EBM
- Evidence Resources
- Time (substitution)

The Kolb Learning Cycle and Evidence-Based Health Care: a case study
Kara Siskier, Jeannette Buckingham, Margaret Wilson
Faculty of Medicine & Dentistry, University of Alberta, Edmonton Canada

UK Evidence-Based Health Care Curriculum



BEGINNING WITH A CLINICAL QUESTION
Ellingsen Sidsa¹ Cand. San / Nurse Anaesthetist & Drageset Sigrunn¹ Cand. San / Nurse Anaesthetist, Department of Postgraduate Studies, Faculty of Health and Social Sciences, Bergen University College, Norway

Background
In the 90 credits nurse anaesthetist program the students learn to give anaesthetic care to all categories of patients in a complex, unpredictable and rapidly changing workday.

Existentialism In Evidence-Based Practice :
How consideration and inclusion of the inter-professional NHS workforce can improve the teaching & implementation of evidence-based practice.

Nick Rowe - Institute of Health & Community Studies, Bournemouth University - U.K.

AWARENESS, ATTITUDE AND KNOWLEDGE OF EVIDENCE BASED MEDICINE AMONG JORDANIAN FAMILY PHYSICIANS
Dr. Farhan Barghout, Dr. Liana Hoteit, Dr. Yana Saad
Jordan University Hospital

THE UNIVERSITY OF WARWICK

Evidence Based Practice; Awareness and Training needs amongst General Practitioner Trainers in the West Midlands, UK
Dr Veronica Wilkie, Robert Cragg, Professor David West, Julie Hadley, Professor Khalid Khan

European Union Evidence Based Medicine Unity Project (EUebm Unity)

Effect of Using Evidence-Based Nursing Practice in Clinical Learning on Nursing Practice Ability and Attitude among Nursing Students in Boromarajonani College of Nursing, Thailand
P.Pantip (M.S.), N.Wipasiri (M.N.S.), K.Tassanee (Ph.D.)
Boromarajonani College of Nursing, Saraburi

"Management of Nursing Students' Practical Training"
Ulvi Kõrgemaa, RN, MA.
Tallinn Health College
Estonia

Instituting the Use of PDA's for BSN Students: Lessons Learned the Hard Way
Kevin Ketchner, MLS
Cline Library

Sally Doshier, EdD, RN, CNE,
School of Nursing

Does the Hidden Curriculum hinder the implementation of Evidence-Based Health Care?
Kent Stobart, Antoinette Peters
Faculty of Medicine & Dentistry, University of Alberta, Edmonton Canada & Harvard Medical School, Boston USA

Statement of Problem

- Despite best evidence of evidence-based health care (EBHC) instruction, about 30% of patients receive care that is inconsistent with scientific evidence, and more than 20% receive care that is not needed or is potentially harmful.
- Clinicians' best practice change

Hypothesis

- The informal and hidden curricula influence the effectiveness of evidence-based health care teaching and uptake.
- Confirmation of a hidden curriculum may be based in the evidence-based health care literature, which can help us better understand the hidden curriculum's existence, form and influence.

Interdisciplinary Collaboration to Integrate Evidence Based Practice in Nursing and Health Professions
Sally Doshier, EdD, RN, CNE
School of Nursing

Kevin Ketchner, MLS
Cline Library

EVALUATION OF A POSTGRADUATE PROGRAMME IN EVIDENCE BASED PRACTICE FOR LIBRARIANS
Lena Nordholm, Lin Irene Rosal, Janet Harris, Monica Nordvold
Centre for Evidence Based Practice, Faculty of Health and Social Sciences, Bergen University College, Norway

Background
In Norway, a one-semester accredited postgraduate programme

Preliminary results
The programme advanced the programme, satisfaction of

Teaching EBM Skills at a University Hospital Turkish Experience
Evidence Based Medicine Committee Members
Dokuz Eylül University Medical School

ARTC
Health Services Research
Atlantic Regional Training Centre

Training tomorrow's health services researchers
Cathy Peyton, M.Ed., Program Manager/Development Officer, Atlantic Regional Training Centre, a Health Research Unit, Memorial University of Newfoundland, St. John's, NL, Canada A1B 3X6

Building Capacity for Health Services Research in Canada
Patricia Conrad, MHSA, Ph.D. (cand.), Senior Program Officer

CADRE at a Glance

Evaluation of Training Centres

Innovative Pedagogical & Program Approaches

THE ATTITUDES, AWARENESS AND PRACTICE OF EVIDENCE-BASED HEALTH CARE (EBHC) AMONG FACULTY AT THE COLLEGE OF MEDICINE, KING SAUD UNIVERSITY, SAUDI ARABIA

Dr. Lubna A. Al-Ansary, MSc, FRCGP, Dept of Family and Community Medicine
College of Medicine, King Saud University, Riyadh, Saudi Arabia

USING CLINICAL PLACEMENT ASSIGNMENTS TO FACILITATE EVIDENCE-BASED PRACTICE
Nina Rydland Olsen, Department of Physiotherapy/Centre for Evidence Based Practice, Faculty of Health and Social Sciences, Bergen University College, Norway

"EVIDENCIAS EN PEDIATRIA" (EVIDENCES IN PEDIATRICS)
Making well-informed decisions based on the current best scientific evidence

GRADE evaluation of heterogeneous clinical evidence
Alison Martin, David Tovey, Charles Young, *BMJ Clinical Evidence*, BMJ Publishing Group, London, WC1H 9JR.

Adapting GRADE for heterogeneous data

We simplified the GRADE Working Group's criteria¹ to create the following score sheet for each comparison and outcome:

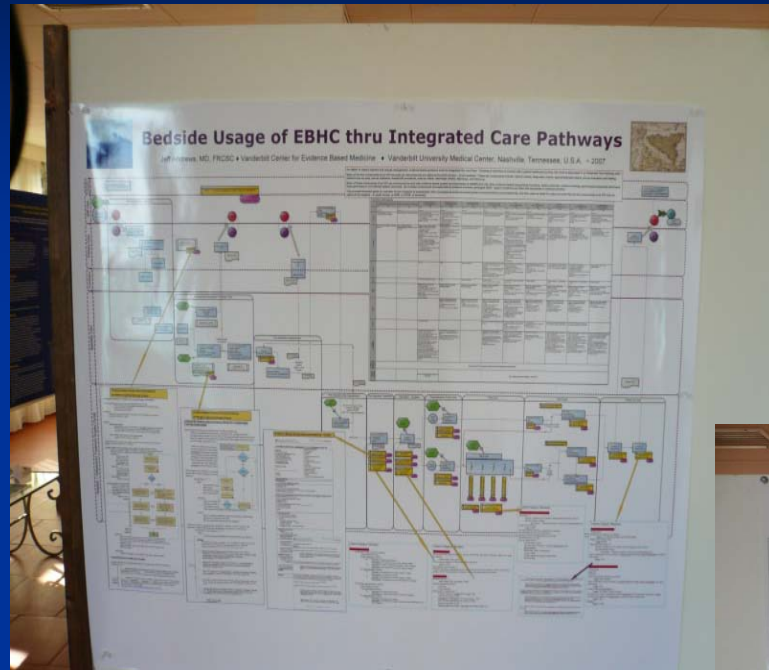
Each intervention is given an

Summary statement before GRADE

OPTION	SULFASALAZINE (FIRST-LINE TREATMENT)
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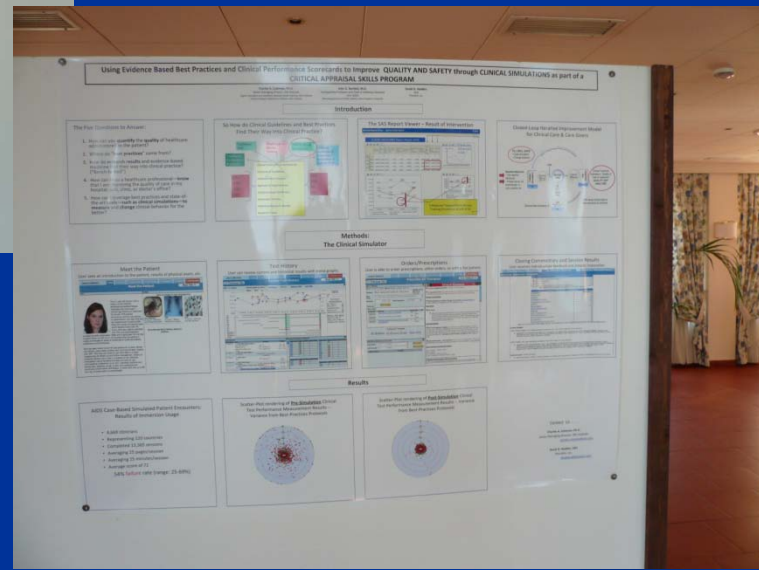
knowledge and practice of research utilization in nurses and allied health professionals

WNS, Isabelle Barbezat, RN, Monica Fedlner, MScN, Kathrin Hirter, RN, Barbara Huerlimann, RN, Ppichiger, PhD, RN, Rita Willener, RN, Erika Wuethrich, RN, Virpi Hantikainen, PhD, RN



Quality Improvement

- Skills
- Systems





Patient Choice

- Decision Aids
- Education
- Self-monitoring
- Self-management



Awareness to Adherence for Hypertension Guidelines

Non-application of guidelines may be due to several factors*:

- Lack of awareness,
- Lack of agreement,
- Lack of belief that one can actually perform a behaviour,
- Lack of outcome expectation
- The inertia of previous practice
- External barriers.

*Cabana MD, et al Why don't physicians follow clinical practice guidelines? A framework for improvement. JAMA 1999; 282(15):1458-1465.



Aim

We surveyed UK general practitioners to better understand their reasons for not adopting specific guidance within the NICE and BHS hypertension guidelines



National Institute for
Clinical Excellence

Issue date: August 2004

Quick reference guide

Hypertension – management of hypertension in adults in primary care

Clinical Guideline 18

Developed by the Newcastle Guideline Development and Research Unit

Journal of Human Hypertension (2004) 18, 139–146
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www.blackwell-synergy.com



BRITISH HYPERTENSION SOCIETY GUIDELINES Guidelines for management of hypertension: report of the fourth working party of the British Hypertension Society, 2004—BHS IV

B Williams¹, NR Poulter², MJ Brown³, M Davis⁴, GT McInnes⁵, JF Potter⁶, PS Sever⁷ and S McG Thom⁸

¹Department of Cardiovascular Sciences, Clinical Sciences Building, Leicester Royal Infirmary, University of Leicester, Leicester, UK; ²International Centre for Circulatory Health, Imperial College London & St Mary's Hospital, London, UK; ³Clinical Pharmacology Unit, Addenbrooke's Hospital, University of Cambridge, Cambridge, UK; ⁴Moorfield House Surgery, Garforth, Leeds, UK; ⁵Section of Clinical Pharmacology and Stroke Medicine, Division of Cardiovascular and Medical Sciences, Gardner Institute, Western Infirmary, University of Glasgow, Glasgow, UK; ⁶Ageing and Stroke Medicine Section, Department of Cardiovascular Sciences, Glenfield Hospital, University of Leicester, Leicester, UK

Summary of recommendations

- Provide advice on life-style modifications for all people with high blood pressure (BP) and those with borderline or high-normal BP. Advice on effective nonpharmacological interventions is provided (A).
- Initiate antihypertensive drug therapy in people with sustained systolic BP (SBP) ≥ 160 mmHg or sustained diastolic BP (DBP) ≥ 100 mmHg (A).
- Make treatment decisions in people with sustained SBP between 140 and 159 mmHg and/or sustained DBP between 90 and 99 mmHg according to the presence or absence of cardiovascular disease, other target organ damage, or an estimated cardiovascular disease (CVD) risk of $\geq 20\%$ over 10 years, according to the Joint British Societies CVD risk assessment programme/risk chart (A).
- CVD risk replaces CHD risk estimation to reflect the importance of stroke prevention as well as

CHD prevention. The new CVD risk threshold of $\geq 20\%$ is equivalent to a CHD risk of approximately $\geq 15\%$ over 10 years.

- In people with diabetes mellitus, initiate antihypertensive drug therapy if SBP is sustained ≥ 140 mmHg and/or DBP is sustained ≥ 90 mmHg (B).
- In nondiabetic people with hypertension, the optimal BP treatment goals are: SBP < 140 mmHg and DBP < 85 mmHg. The minimum acceptable level of control (Audit Standard) recommended is $< 150/ < 90$ mmHg. Despite the best practice, these levels will be difficult to achieve in some hypertensive people (B).
- In people with diabetes and high BP, optimal BP goals are: SBP < 130 mmHg and DBP < 80 mmHg. The minimum acceptable level of control (Audit Standard) recommended is $< 140/ < 80$ mmHg. Despite the best practice, these levels will be difficult to achieve in some people with diabetes and hypertension (B).
- Meta-analyses of BP-lowering trials have confirmed that, in general, the main determinant of benefit from BP-lowering drugs is the achieved BP, rather than choice of therapy. In some circumstances, there are compelling indications and contraindications for specific classes of antihypertensive drugs, and these are specified (A).
- Most people with high BP will require at least two BP-lowering drugs to achieve the recommended BP goals. A treatment algorithm (A/B/C/D) is provided to advise on the sequencing of drugs and logical drug combinations (C). When there are no cost disadvantages, fixed drug combinations

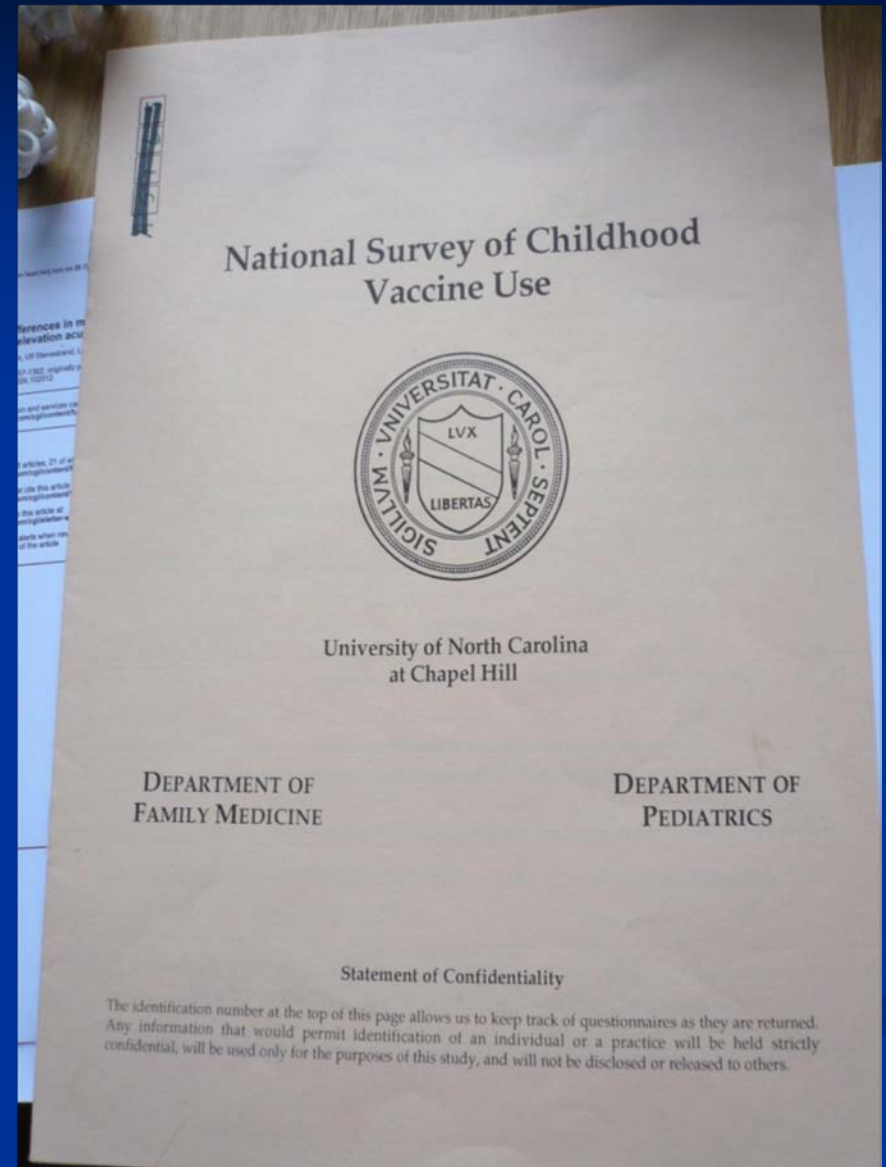
Correspondence: Professor B Williams, Department of Cardiovascular Sciences, Clinical Sciences Building, Leicester Royal Infirmary, PO Box 66, Leicester LE2 7LX, UK.
E-mail: b.williams@le.ac.uk
Guideline Working Party Chairman: Professor Bryan Williams, MD FRCP, University of Leicester, Guideline Working Party Members: Professor Neil S Poulter, MRCP, Imperial College London; Professor Monte J Brown, MD FRCP FMedSci, University of Cambridge; Dr Mark Davis, MRCCP, General Practitioner, Leeds; Professor Gordon T McInnes, MD FRCP, University of Glasgow; Professor John F Potter, MD FRCP, University of Leicester; Professor Peter S Sever, FRCR, FRCP, Imperial College London; British Hypertension Society member: Dr Simon McG Thom, MD FRCP, Imperial College London.



Methods

Pathman DE

Model of the cognitive and behavioural steps physicians take when they comply with national clinical practice guidelines





Pathman, postulated that

physicians, who are initially unaware of a specific piece of research or guideline recommendation, must first become *aware* of it, then

agree with it in principle, then decide it is appropriate and

feasible to use in their own practice - *adopt it*, and finally

succeed in following it at appropriate times - *adhere* to it.



Methods

- A questionnaire was sent as a link in a targeted electronic clinical bulletin distributed through *doctors.net.uk*.
- The questionnaire was adapted from the original four steps of Pathman's 'awareness-to-adherence' questionnaire
- We focused the questions on seven recommendations from the British Hypertension guidelines and the NICE guidelines
- The questionnaire was piloted on a sample of GPs from the Department of Primary Health Care, University of Oxford

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by doctors, for doctors

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EDUCATION - online learning, appraisal & revalidation

Free courses for:

- All UK Doctors
- General Practitioners
- Hospital Physicians
- HOs and SHOs

Latest modules completed

- Breast Cancer Management
- ECG Interpretation 2007/08
- Hypertension 2007/08
- Death: Certification

FORUM - clinical discussion & support

- Advice on Locum please
- NHS direct ?!?!?
- save my bacon butties
- folav - i cheated
- Confidential records
- "inappropriate code fo

POLL: Existing OOH services are 'inadequate and inflexible'

Agree Disagree [vote](#) ([view result](#))

LIBRARY - comprehensive information

- Medicine - PubMed access
- Online textbooks
- eFormulary
- Journal Watch
- Mediqaedia
- eCases

Instant medical database access

Full-text reference materials

Search UK drugs and dosages

Weekly journals summarised

Textbook written by members

Clinical case studies online

Search Medline eFormulary for

NEWS - today's medical news

- GP pay up - two years
- Healthy lifestyle comb
- Alarm at foundation pl
- A parent's guide to me

Alternative Careers fo

- Staff Grade in Diabetes
- Medical Director
- RMO



Methods

Respondents were classified as unaware of a recommendation if they had heard or read ‘nothing at all’ about the recommendation.

They were considered to have adopted a guideline when they reported implementing it more ‘than half of the time’.

They were considered to adhere to a guideline when they ‘always’ or ‘more than half the time’ applied it in clinical practice and specified in their free text response the system they had in place to promote or monitor application.



Results

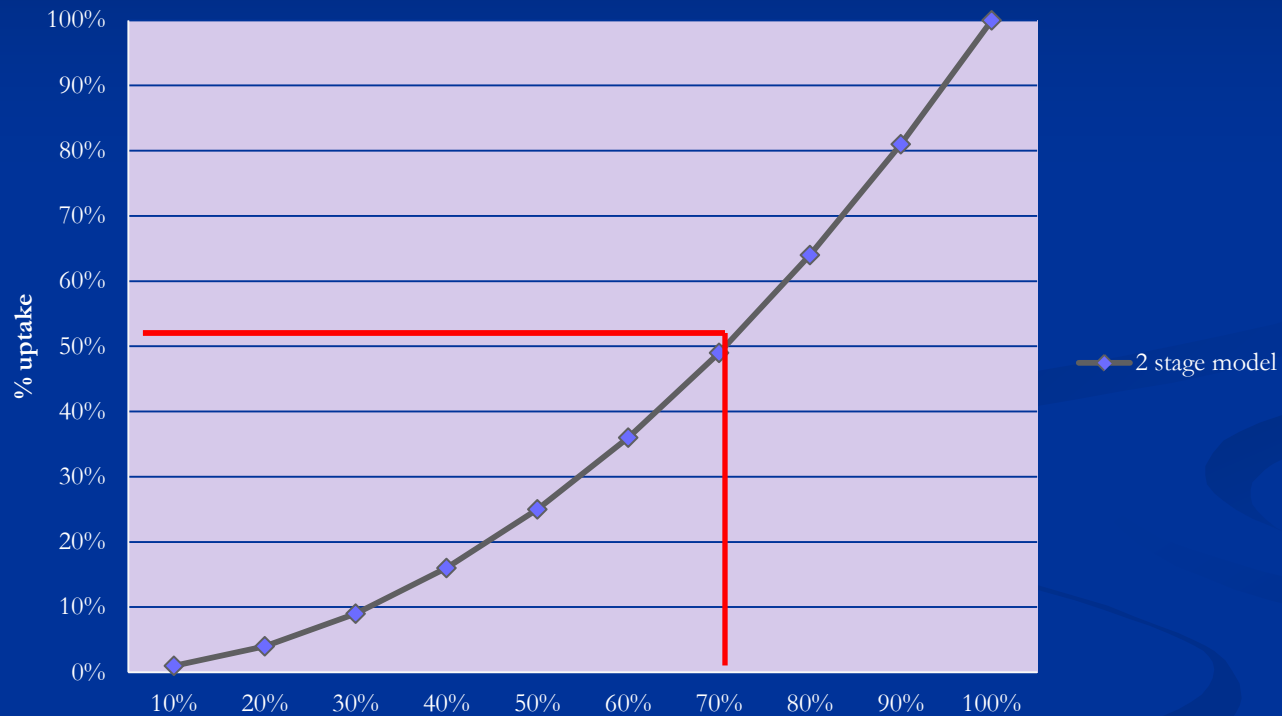
Respondents were similar to the GP population in terms of gender , employment status but Differed in terms of GP partner principal (57% in the survey versus 83%)

	Female (%)	Male (%)	Total
Total	161 (40.1%)	240 (59.9%)	n =401
Current position			
GP registrar	16 (4.0)	24(6.0)	40 (10.0)
GP partner principal	71(17.7)	156 (38.9)	227 (56.6)
Non principal	71 (17.7)	57 (14.2)	128 (31.9)
Other	3 (0.7)	3(0.6)	6 (1.4)
Year of qualification			
pre 1960			0 (0)
1960 - 1969	1 (0.2)	6 (1.5)	7 (1.7)
1970 - 1979	17 (4.2)	36 (9.0)	53 (13.2)
1980 - 1989	41 (10.2)	73 (18.2)	114 (28.4)
1990 - 1999	70 (17.5)	85 (21.2)	155 (38.7)
2000+	32 (8.0)	40 (10.0)	72 (18.0)



71 % Awareness and Agreement leads to 50% application

2 stage model

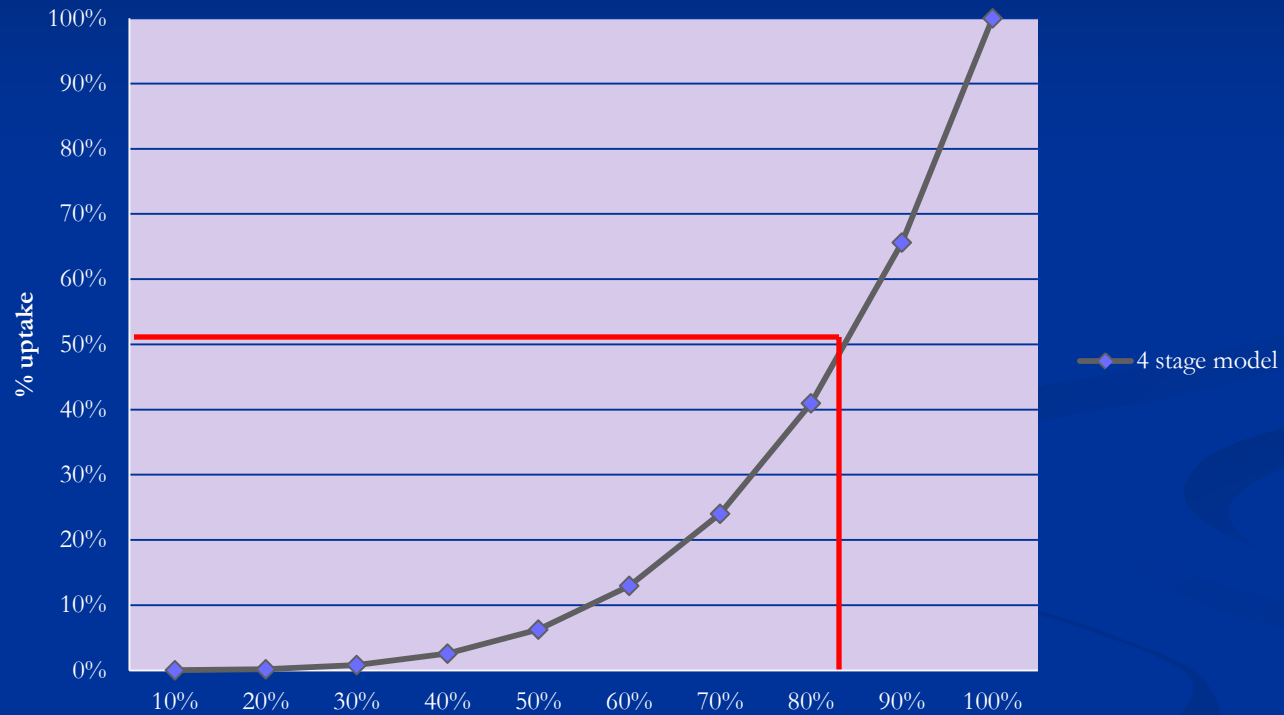


% implementation at each stage



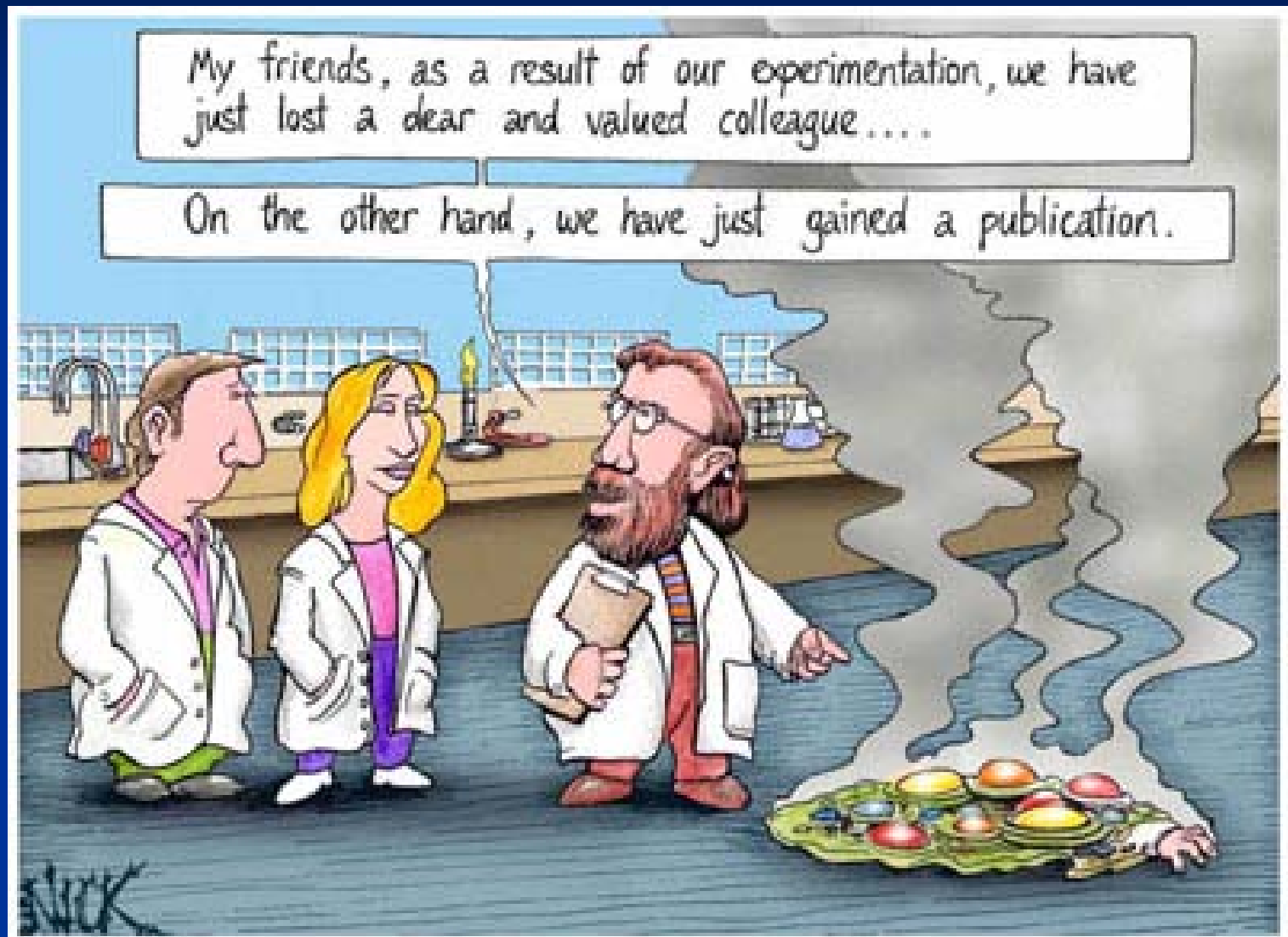
84 % Awareness, Agreement, Adoption and Adherence at every stage leads to implementation of 50%

4 stage model





Why might practitioners not agree with recommendations





Damn It feels Good to Be a Gangsta'

Thank You



Awareness, Agreement, Adoption, Adherence