



MIM conference
26 April 2007, *buiding Belgacom,*
Brussels

Introduction to Care Pathways

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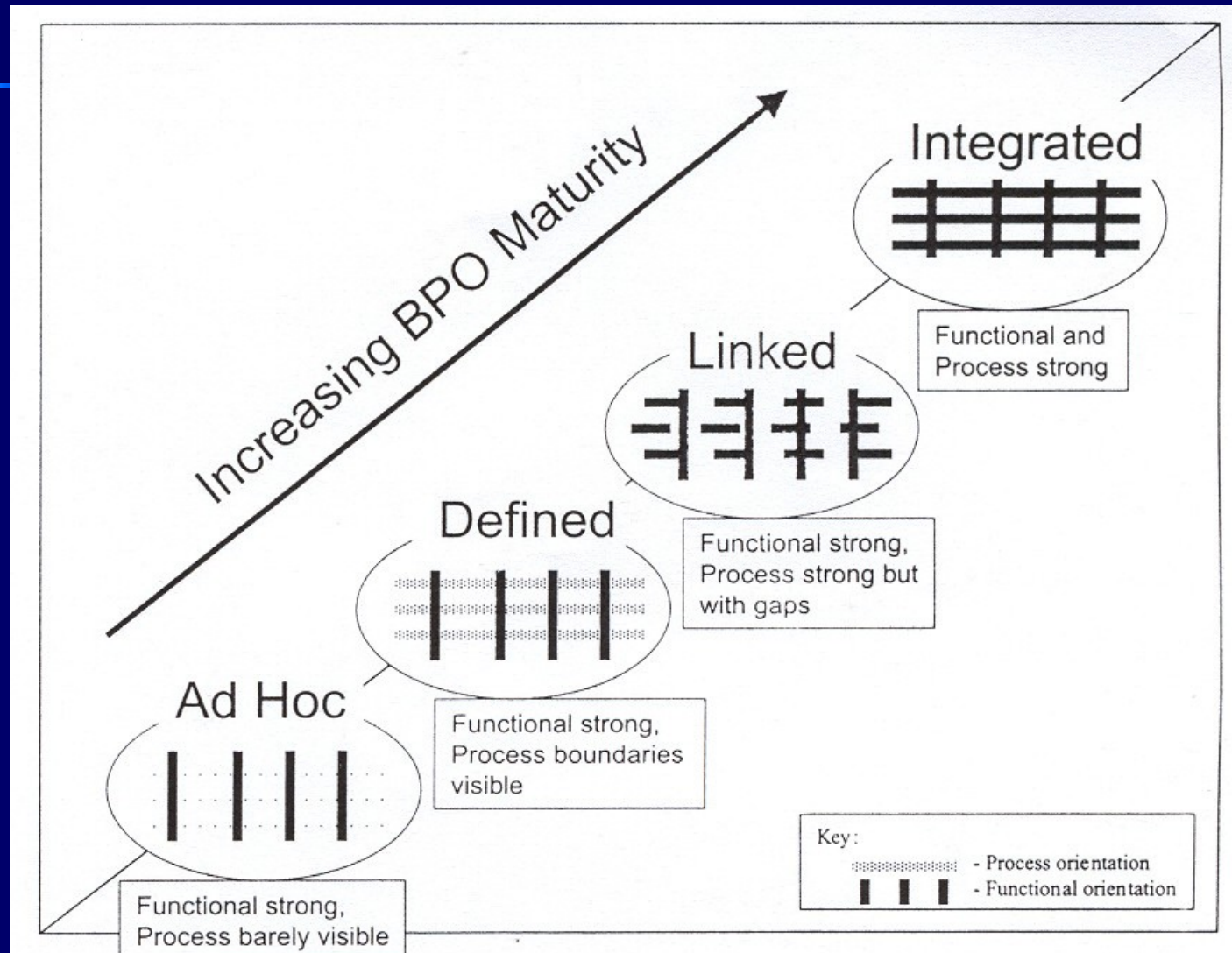
Content

- What are care pathways ?
- Impact of care pathways?
- Use of care pathways in Belgium



Business Process Orientation

(Mc Cormack & Johnson , 2001)



ON CARE PATHWAYS

We hear a lot about guidelines, which are supposed to ensure that the right patients gets the right treatment. This is a rather glib statement, but is underpinned by some interesting ideas, including:

Clinical
pathway

- ◆ **Diagnosis:** Treating the right patient
- ◆ **Treatment:** Treating the right patient right
- ◆ **Organisation:** Treating the right patient right at the right time
- ◆ **Pathway:** Treating the right patient right at the right time and in the right way

Guidelines are supposed to cover this, but they mostly cover just the first two steps. **There is more to delivering good care than that. It requires good organisation** - what one might call management, except that many of us now see that word as meaning anything but organisation. And it requires that we perform actions in ways that are known to deliver good quality care.

Source: BANDOLIER, juli, 2003



Many definitions

- National Library of Medicine (MeSH: critical pathway)
 - Schedules of medical and nursing procedures, including diagnostic tests, medications, and consultations designed to effect an efficient, coordinated program of treatment.
- National Pathway Association UK (1998)
 - An integrated care pathway determines locally agreed, multidisciplinary practice based on guidelines and evidence where available, for a specific patient/client group. It forms all or part of the clinical record, documents the care given and facilitates the evaluation of outcomes for continuous quality improvement
- Belgian-Dutch Clinical Pathway Network (2002)
 - A clinical pathway is a collection of methods and tools to guide the members of a multidisciplinary and interdisciplinary team towards patient focused collaboration for a specific patient population to assure qualitative and efficient care
- Literatuurreview (Debleser et.al., 2006):
 - 84 definitions found



Definition of a Care Pathway

- Care pathways are a **methodology** for the mutual decision making and organization of predictable care for a well-defined group of patients during a well defined period.
- Defining characteristics of care pathways include:
 - an explicit statement of the **goals and key elements** of care based on evidence, best practice, and patient expectations.
 - the facilitation of the communication, **coordination of roles, and sequencing** the activities of the multidisciplinary care team, patients and their relatives.
 - the documentation, monitoring, and **evaluation of variances and outcomes**; and
 - the **identification of the appropriate resources**.
- The aim of a care pathway is to enhance the quality of care by improving patient outcomes, promoting patient safety, increasing patient satisfaction, and optimizing the use of resources.”

Source: European Pathway Association, 2006, www.E-P-A.org

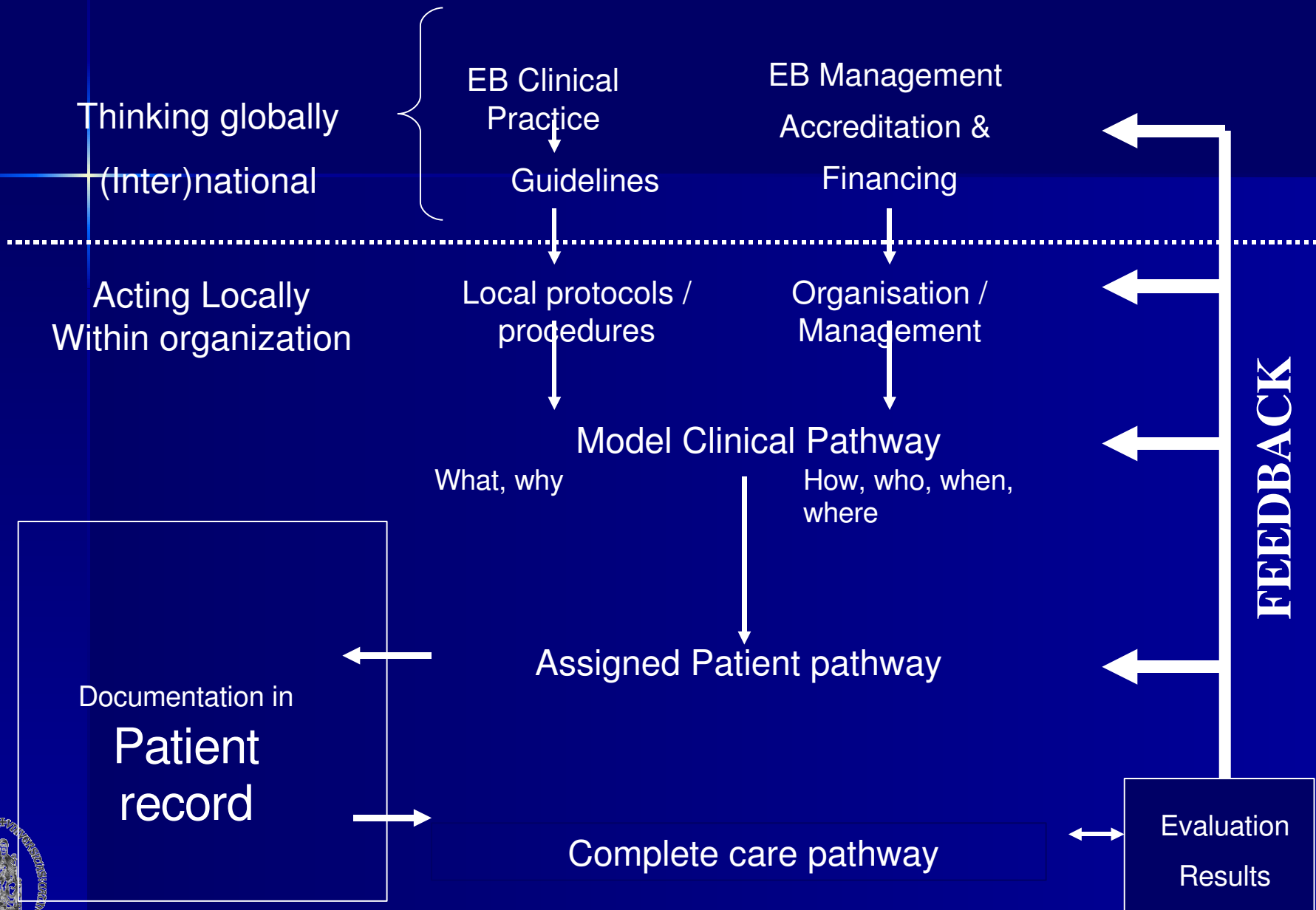


Care pathways may mean different things ...

- Model pathway: **Prospective description of the** ideal and expected care process for a group of patients
- Assigned patient pathway: **Prospective description of the** ideal and expected care process for an individual patient
- Completed pathway: **Retrospective description of the** real care process of an individual patient



How are they related ?



source: K. Deluc, Harrogate, 2002



Care Pathway Template

Area responsible for care—may be used for tracking outcomes & patient satisfaction

Patient:
DRG#:
Date Admit:
Date Path Begun:

Diagnosis:
Expected LOS:
Actual LOS:

Targeted LOS

Date: Date: Date: Date: Date: Date: Date: Date:

Care Element	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Discharge Outcomes				
Care Unit													
Consults													
Test/Labs	<table border="1"> <tr> <td>m</td> <td>u</td> </tr> <tr> <td>m</td> <td>u</td> </tr> </table>	m	u	m	u								
m	u												
m	u												
Treatments													
Medications													
Assessments													
Symptom/Pain Control													
Activity/Safety													
Teaching													
Nutrition													
Discharge Planning													
Intermediate Patient Outcomes													
Variance Code/Comments—See Back of Pathway													

Physician responsibility

Nursing responsibility

Optional checklist m=met, u=unmet

Optimal timing & sequence of care

Trending & Variance Summaries

"Milestones"

Includes anticipated functional status



Care pathway for Hip surgery

Figure

Admitting diagnosis: _____ History: _____
 Surgery: _____ IV: _____
 Consulting physicians: _____ Procedure: _____ Room number: _____
 Allergies: _____

	Pre-hospital	Post-op Amit	Post-op day 1	PO day 2	PO day 3	PO day 4	PO day 5	PO day 6	PO day 7
Consults	Medical clearance if necessary Evaluate need for SS consult		PT consult & therapy; BID Re-evaluate SS needs	PT BID Home Care Evaluation	PT BID	PT BID One visit by OT to assist with ADLs as indicated	PT BID	PT BID	
Tests	CXR, CBC, UA, PT, SMA20, EKG, Labs appropriate for age & health 72 hrs before	T & C2 units X-ray	H & H PT (if on coumadin)	H & H PT	H & H PT	PT	PT	PT	PT
Mobility		Bedrest; tip unaffected side 30° HOB pm	Hip exercises Chair BID Stand/amb...	Continue exercises Chair BID Amb BID	Continue mobility BRP with ETS	Continue mobility	Continue mobility	Continue mobility Stairs	Continue mobility
Treatments		ABD pillow, trapeze Drain IV therapy, triflow q2° DVT prophylaxes: (TED, coumadin, ASA, thrombogards)	ABD pillow, Drain, Trapeze IV therapy, triflow q2° DVT prophylaxes:	ABD pillow, trapeze DC Drain DC IV DVT proph	ABD pillow, Triflow DVT proph	ABD pillow, Triflow DVT proph	ABD pillow, Triflow DVT proph	ABD pillow, Triflow DVT proph	ABD pillow, Triflow DVT proph
Meds		Pain Med (PCA, IM) Antibiotics	DC Antibiotics	Evaluate PCA PO pain meds	PO pain meds pm				
Nutrition metabolic		DAT ...	DAT ...	DAT ...	DAT ...	DAT ...	DAT ...	DAT ...	DAT ...
Elimination		Catheter of choice pm st cath ... foley after 3rd time		DC foley Eval. bowel function (BCOC)	Maintain normal bowel pattern	Maintain normal bowel pattern	Maintain normal bowel pattern	Maintain normal bowel pattern	Maintain normal bowel pattern
Health/home management	Tour ECF	High risk assessment Assess need for ECF			Complete transfer from identify Dr. to follow	Prescription for home equipment identified by PT To ECF (if approp.)		Order Equipment	Equipment delivered
Health perception	THA pre-op teaching by Ortho. Clinician	Instruct on post-op teaching	Instruct on hip pre- cautions		Discharge teaching if to ECF		Discharge teaching	Reinforce D/C teaching	
signature									

To ECF: Outcomes:

1. In-out of bed with assistance.
2. On-off commode or chair with assistance.
3. Ambulate 25 feet with assistive devices with assistance.
4. Temperature below 100° for 24 hours
5. Utilizes oral analgesics for pain control
6. Evidence of wound healing, no drainage.
7. Demonstrate safe hip precautions by appropriately answering questions
8. Voiding without difficulty and has moved bowels at least once.

Date clinical path reviewed by MD _____

Date met:


If Home: Outcomes:

1. In-out of bed independently or with minimal assist.
2. On-off commode or chair independently or with minimal assist.
3. Ambulates 75 feet independently with assistive devices
4. Utilizes oral analgesics for pain control.
5. Evidence of wound healing, no drainage.
6. Demonstrates safe hip precautions by appropriately answering questions.
7. Re-establish elimination pattern.

Admitting RN _____

Date Met:

Care pathways for patients



The screenshot shows the top section of the Yale-New Haven Hospital website. At the top, a blue banner reads "ADVANCING MEDICINE SINCE 1826". Below this, the Yale-New Haven Hospital logo is on the left, featuring a stylized blue 'Y' and the text "YALE NEW HAVEN HEALTH". To the right of the logo, the hospital's name "YALE-NEW HAVEN HOSPITAL" is displayed in a large, serif font. Below the name, the address "20 York Street, New Haven, CT 06510-3202" and the phone number "Main phone number: (203) 688-4242" are listed. On the far right, there is a "Contact us" link and a photograph of a healthcare worker in a surgical mask and cap. Below the main header, there is a yellow banner with the text "NEED A DOCTOR?, use our online service, or call (888) 700-6543". To the right of this banner is a search bar with a dropdown arrow and a "Continue..." button. Below the yellow banner, a blue navigation bar contains links for "Children's Hospital", "Psychiatric Hospital", "Directions & Parking", and "Employment at YNH".

ADVANCING MEDICINE SINCE 1826

YALE-NEW HAVEN HOSPITAL

YALE NEW HAVEN HEALTH

20 York Street, New Haven, CT 06510-3202
Main phone number: (203) 688-4242

NEED A DOCTOR?, use our online service, or call (888) 700-6543

Yale-New Haven Hospital, Advancing Medicine Since 1826. 20 York Street, New Haven, CT 06510-3202. Main phone number: (203) 688-4242.

Children's Hospital | Psychiatric Hospital | Directions & Parking | Employment at YNH

So should you be on a patient pathway?

If you are admitted for a high risk or complex procedure, you should ask if your hospital can provide you with a pathway. Be sure to ask your doctor or hospital if you will be on a pathway before you are admitted to the hospital. The pathway can answer many questions you may not know to ask. You will also be able to familiarize yourself with the likely schedule of care.

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- **Impact of care pathways?**
- Use of care pathways in Belgium



Literature Review 2000-2002

Effect of care pathways

613 publications on care pathways; 208 publications (1/3) is evaluating effect of Care pathways

	Positive effect	No Difference	Negative effect
Clinical outcome (N= 136) (65 %)	65,6%	32%	2,4%
Service (N= 39) (19 %)	62,2%	29,7%	8,1%
Process (N=105) (50 %)	86%	6,9%	6,9%
Team (N=50) (24 %)	83,3%	6,3%	10,4%
Financial (N=131) (63 %)	82,5%	13,5%	4%



(Source: Van Herck P, Vanhaecht K, Sermeus W, JICP, 2004)

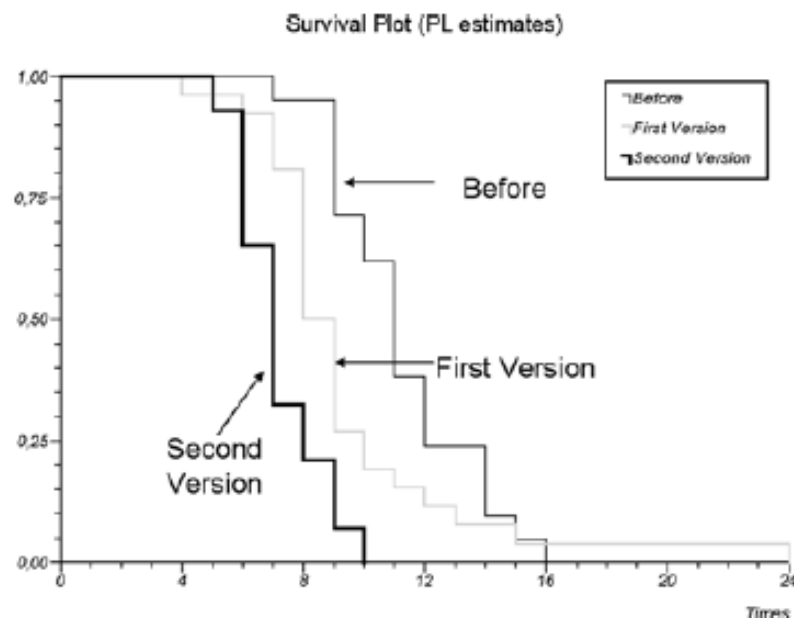


Fig. 3. — Kaplan Meier plots showing the day on which patients first walked 200 meters following total knee arthroplasty surgery (n = 103). All conventions are as in fig 2.

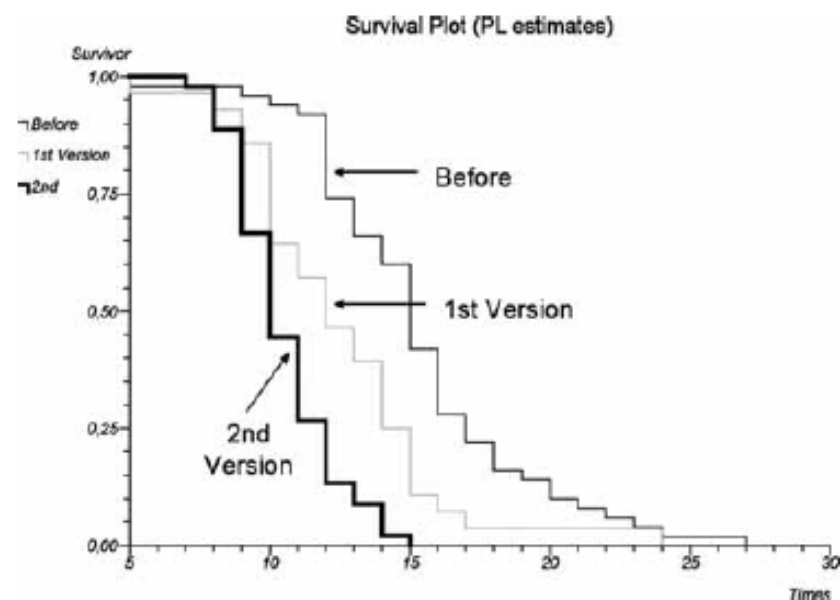


Fig. 4. — Kaplan Meier plots showing the length of hospital stay of patients following total knee arthroplasty surgery (n = 103). All conventions are as in fig 2.

Table I. — Implementation of two versions of a clinical pathway for total knee arthroplasty : effect on clinical indicators and length of stay

Indicator	Baseline* (n = 26)	First evaluation† (n = 32)	Second evaluation‡ (n = 45)	Log-Rank test
90° Knee flexion	9.5 [§]	9.5	8.0	p < 0.05
Straight leg raise	6.6	6.2	3.4	p < 0.05
60-meter walk	9.2	7.1	5.1	p < 0.05
200-meter walk	11.2	9.4	7.2	p < 0.05
Pain score < 3 for two days	7.9	9.8	7.4	p > 0.05
Length of stay	15.3	12.1	10.5	p < 0.05

Hernia Inguinalis Pathway

Table 2 The clinical pathway for inguinal hernia repair: comparison of the process indicators before and after the implementation of the clinical pathway

Indicators	Before (117 cases)	After (126 cases)	<i>P</i> value
Rate of day surgery activity	38.46%	56.35%	<0.05
Average length of stay (days)	3.25	1.64	<0.01
Median number of preoperative exams (per patient)	22	7	<0.01
Proportion of patients with antibiotic prophylaxis (not consistent with current recommendations)	100.00%	0.00%	<0.01
Proportion of patients with correct hair removal	81.19%	100%	<0.01
Rate of completion of clinical records	62.39%	95.24%	<0.01
Proportion of patients with massive bleeding	0.00%	0.00%	NS
Proportion of patients with postoperative pain	NA	3.18%	NC
Proportion of patients with wound infections	3.42%	2.34%	NS
Proportion of patients with unscheduled return to operating room	1.71%	0.79%	NS

NA, not available; NS, not significant; NC, not calculable.



Heart failure Pathway

Table 3 The clinical pathway for heart failure: comparison of the process indicators before and after the implementation of the clinical pathway

Indicators	Before (178 cases)	After (68 cases)	<i>P</i> value
Rate of diagnostic agreement between emergency room and general medicine unit	NA	77.78%	NC
Average length of stay (days)	10.89	7.96	<0.01
Rate of completion of clinical records in emergency room	21.71%	26.29%	NS
Rate of completion of clinical records in general medicine unit	26.29%	62.86%	<0.01
Proportion of patients with left ventricular function assessment	44.94%	100.00%	<0.01
Proportion of smoker patients with advice/counselling for smoking cessation	NA	100.00%	NC
Proportion of patients with written discharge instructions (activity, diet, etc.)	0.00%	100.00%	<0.01
Proportion of patients with ACE inhibitor at discharge	12.36%	20.59%	NS
Rate of unscheduled readmissions within 31 days	6.74%	2.94%	NS
Total in-patient mortality	17.42%	4.41%	<0.01

NA, not available; NC, not calculable; NS, not significant; ACE, angiotensin-converting enzyme.



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Care Pathways in Belgium

Pathway Network
KUL-UCL-CBO

Fed. Gov. Study

KCE studies

*Experience
Know-how*

Obesity

Riziv/Inami

*Both Government & Clinicians
Hospitals & Primary Care
Multidisciplinary*

Dementia

KBS/FRB
onco

Surgery

Others

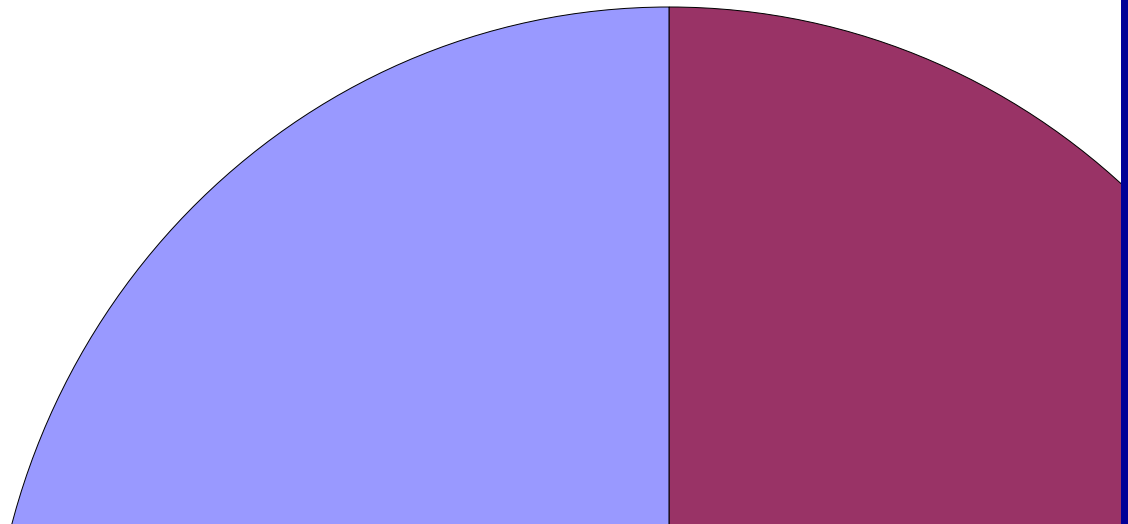
Nat. Raad
Conseil Nat.



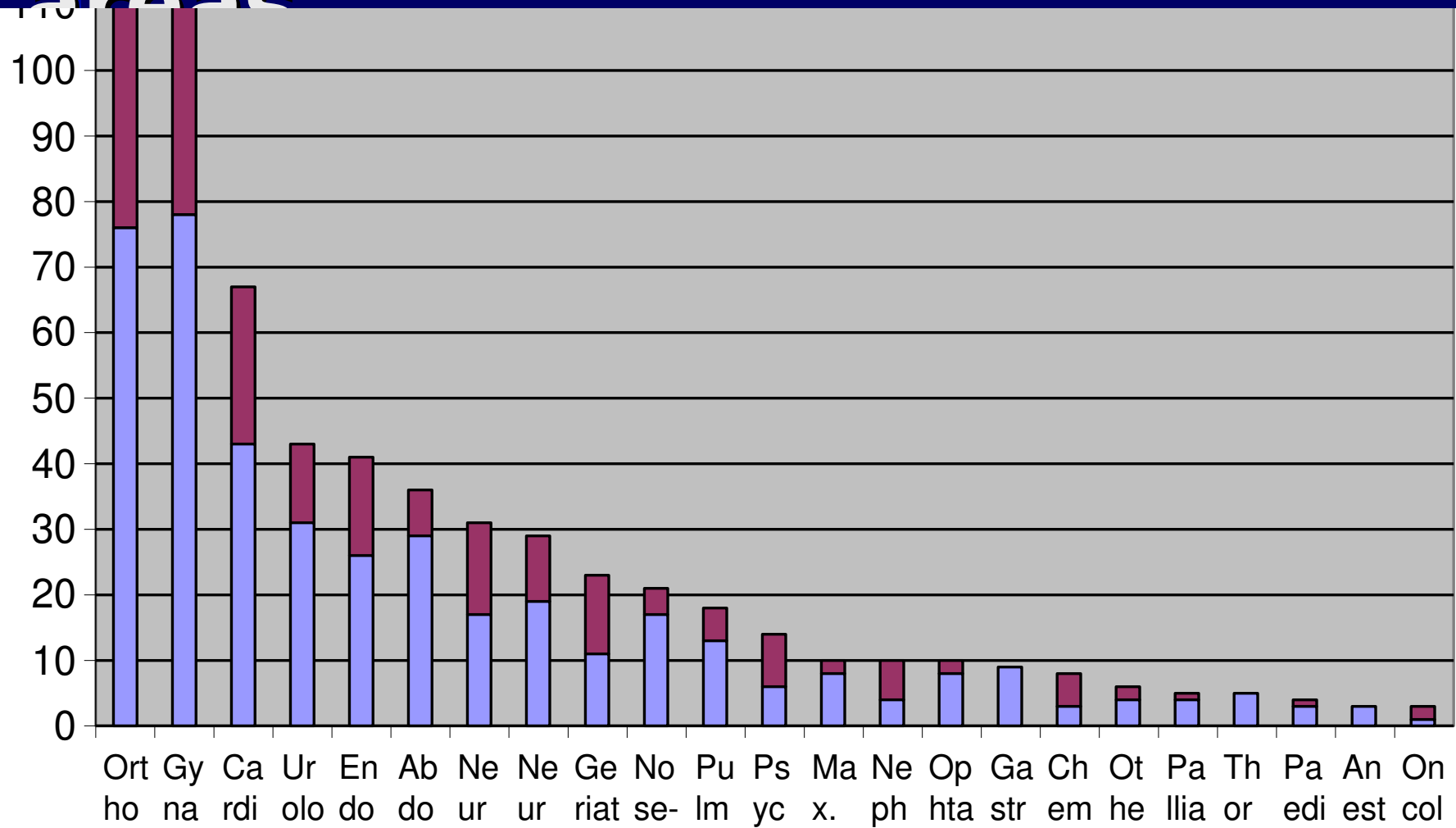
Pathway projects in Belgium

(in 69 organisations in Pathway Network)

Status of projects (n=69)

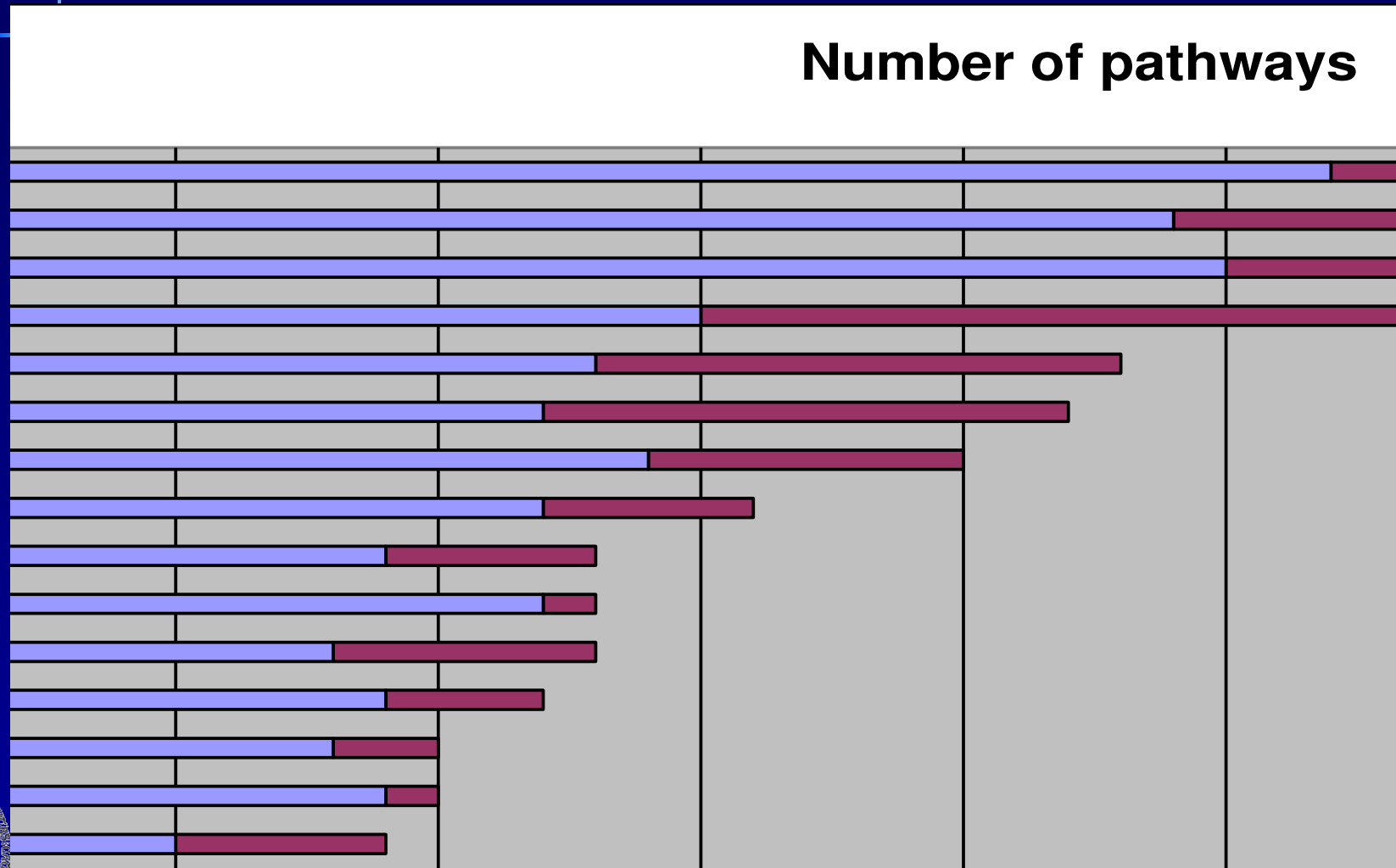


Most common clinical areas



Most common pathways

These 20 patient groups (n=345 pathways) represent 55% of all pathways



Lessons

- Main goal is not to implement care pathways but to solve quality and efficiency problems
- Success rate is dependent from
 - Involvement of senior management
 - Clinical ownership
 - Systematic approach

•Source: Bower, K, 2005, Sermeus et al, 2005



Pulling it all together

Care pathways do not start from nowhere and nothing. It is not as if what we do usually is badly awry, and our experience in modern healthcare systems is the opposite. These large, complex, organisations looking at millions of individual people do a simply marvellous job for most people most of the time.

While recognising that, none of us could or would claim that everything is perfect. There is always room for improvement as our technology, experience, and support services improve. The issue is often not one of no change, but often one of too much change, but of the wrong sort.

In industry, care pathways would be called something else. A mix, perhaps, of good practice and quality control, plus a large helping of ongoing quality improvement. After all, care pathways involve not one action, but many, often in a complex package of care. In these complex packages, it is the combining of individual interventions in a management framework suited to local needs and abilities that is the critical factor.

