



Clinical Pathways




Kris Vanhaecht, Belgium
Marie Kehoe, Ireland
Massimiliano Panella, Italy

London, October 25th 2006



Schedule of this 1 hour session

- 0-5 min: Introduction of the speakers (KVH-MK-MP)
- 5-15 min: (KVH) Introduction on Clinical / Care Pathways
- 15-25 min: (MK) Focus 1: The evaluation of the care pathway document using the Integrated Care Pathway Appraisal Tool (Whittle et al, 2004)
- 25-35 min: (KVH) Focus 2: The evaluation of the organisation of the care process using the Clinical Pathways Self Evaluation Tool (Vanhaecht et al, 2006)
- 35-45 min: (MP) Focus 3: The evaluation of the effect of the care pathway (case study on heart failure) (Panella et al, 2006)
- 45-60 min: Questions & Answers



Introduction of the speakers

- European Pathway Association



- www.E-P-A.org

- Kris Vanhaecht

- www.nkp.be

- Marie Kehoe

- www.isqh.net

- Massimiliano Panella

- www.med.unipmn.it



The European Pathway Association

- E-P-A founded in 2004

- Goals:

- Knowledge sharing & Networking
 - Courses (E-P-A summer school in Sept 2007 in Italy; Training for companies)
 - Conferences (ICP London 2007, Barcelona 2008)
 - Research (EPA survey published in J. of Integrated Care Pathways 2005)

- Contact persons in 24 countries worldwide

- More than 250 members

- Smartgroup is communication channel with 870 members

- EPA Newsletter

- Membership is free

- More information: www.E-P-A.org



Introduction of clinical pathway

- What is pathways all about?
 - Making care processes transparent and building the care processes around patient needs, and not just around available resources (IOM reports)
 - Finding bottlenecks in actual care processes
 - Measurement of pathway specific indicators
 - Discussions within multidisciplinary team
 - Introduce the improvement in the daily practice
 - Integrate change in patient record
 - Systematic follow-up of quality and efficiency
- Clinical pathway / Care Pathway / Integrated Care Pathway
- Medline 2000-2003: 84 Definitions



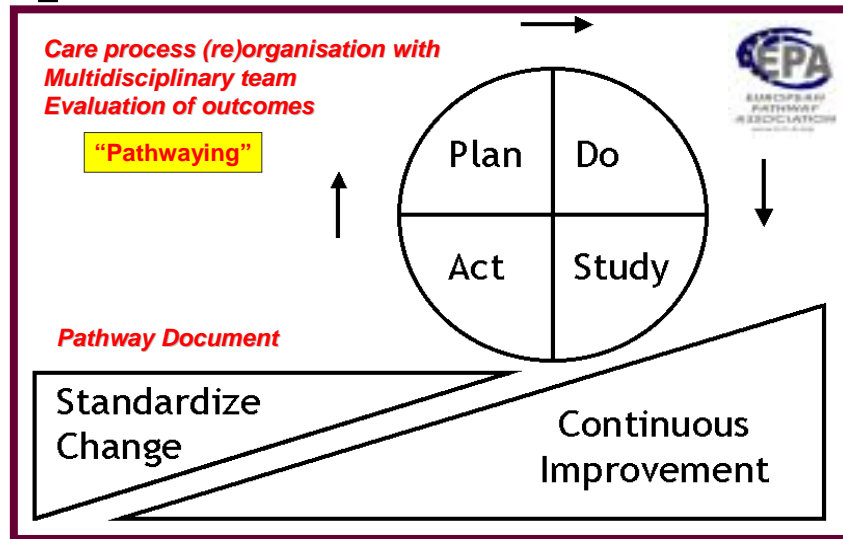
European Pathway Association Definition of Care Pathway:

- 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.”

Reference; European Pathway Association, 2006, www.E-P-A.org



The goal of care pathways



Clinical Pathway Audit Tools

Clinical Pathway Audit Tool	Ref	Country of origin	Year of Development	Source	N° of Domains*	Total N° of items*	Validation	Scoring System	Total score	Pathway Score compared with patient outcomes
Clinical Path Assessment	Bower, 2000 [33]	USA	2000	EPA	11	44	No	1 to 4 scale	score per domain	no
ICP Analysis Sheet	Bryson & Browning, 1999 [20]	Scotland	1998	Smartgroup	28	101	No	Yes/No/ not applicable	score per item	no
ICP Evaluation Form	Jones, 2002 [28]	Wales	2002	Smartgroup	5	38	No	Yes/No	score per domain	no
ICP key elements checklist	Croucher, 2005 [26]	England	2005	Literature	14	14	No	Yes/No	overall score	no
ICPAT	Whittle, 2004 [24]	Engl.	1999	Literature	6	99	Yes	Yes/No/not sure /not applicable	score per domain	no
Quality Assurance Template Pathway Development/Practice Standard	Mc Sherry, 2001 [25]	England	2001	Literature	4	24	No	0 to 4 scale	score per domain	no
Template for clinical pathway design	Mallock & Braithwaite, 2005 [32]	Australia	2005	EPA / Literature	5	20	No	Yes/No	score per domain	no

Source: Vanhaecht et al, J. Nurs Manag, 2006

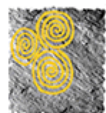
[Problem Solved?]

- ICPAT:
 - Came out as best available pathway audit tool
 - Mainly evaluates the pathway document
- Is that not enough ?
 - We also need to evaluate the organisation of the care process
 - We need to evaluate the outcomes



[The evaluation of the care pathway document using the Integrated Care Pathway Appraisal Tool (ICPAT)]

Marie Kehoe & Claire Whittle



ISQSH

Irish Society for Quality & Safety in Healthcare

London, October 25th 2006

ICPAT

- Whittle CL, McDonald P, Dunn L. Developing the Integrated Care Pathway Appraisal Tool (ICPAT): a pilot study. *Journal of Integrated Care Pathways* 2004;8(2):77-81.
- McDonald PS, Whittle CL, Dun L, de Luc K. Shortfalls in integrated care pathways. Part 1: what don't they contain? *Journal of Integrated Care Pathways* 2006;10(1):17-22.
- McDonald PS, Whittle CL, Dun L, de Luc K. Shortfalls in integrated care pathways. Part 2: how well are we doing? *Journal of Integrated Care Pathways* 2006;10(1):23-7.



The evaluation of the organisation of the care process with the Care Process Self Evaluation Tool (CPSET)

Kris Vanhaecht



London, October 25th 2006

[CPSET]

- Vanhaecht K, De Witte K, Depreitere R, Sermeus W. Clinical pathway audit tools: a systematic review. J.Nurs.Manag. 2006; 14(7):529-37.
- Vanhaecht K, De Witte K, Depreitere R, Van Zelm RT, De Bleser L, Proost K, Sermeus W. Development and validation of a Care Process Self Evaluation Tool (CPSET). Health Services Management Research 2006; Accepted for publication.
- Vanhaecht K, De Witte K, Panella M, Sermeus, W. Can the organisation of care processes be evaluated? In progress.



[Why should we use CPSET]

- Patient care is provided by multidisciplinary teams
- Multidisciplinary teams are the key to success in re-organizing care processes
- Care processes will be the main topic and point of view for quality control, cost calculation, accreditation, ...



Development & Validation of CPSET

- Multi method approach
 - Qualitative & Quantitative methods
 - Including 885 professionals and patients
 - Validated on content validity, face validity, construct validity, criterion validity, sensitivity/specificity, Guttman scaling, reliability
- CPSET 2006 version:
 - 29 items self evaluation tool (1-10 scale)
 - 5 subscales:
 - Patient focused organisation (6 items)
 - Coordination of the care process (7 items)
 - Communication with patients and family (4 items)
 - Collaboration with primary care (3 items)
 - Follow-up of the care process (9 items)
- Valid and reliable tool to evaluate the organisation of the care process from the multidisciplinary point of view

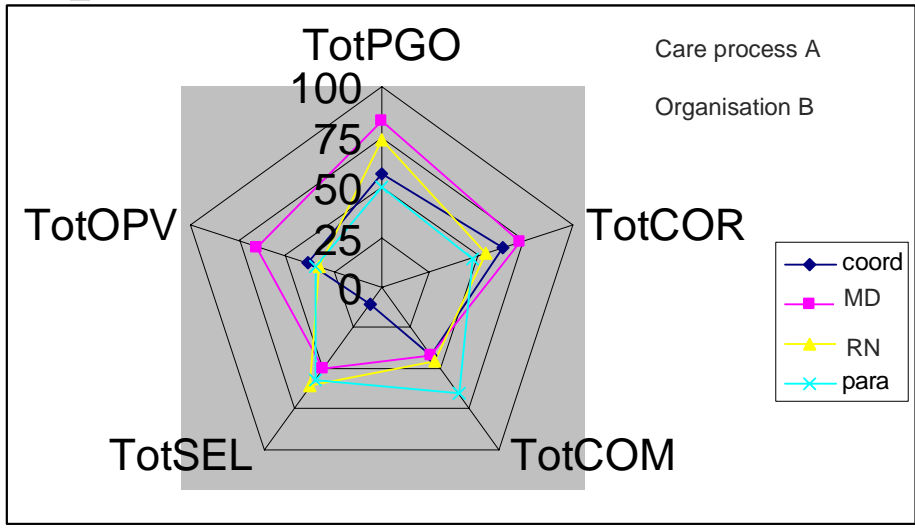


CPSET

The screenshot shows the CPSET questionnaire form. It includes the NKP logo and the title 'Clinical Palliative Care Evaluation Tool (CPSET)'. The form consists of a grid with 29 rows and 10 columns. The rows are grouped into five subscales: 'Patient focused organisation', 'Coordination of the care process', 'Communication with patients and family', 'Collaboration with primary care', and 'Follow-up of the care process'. Each cell in the grid is for a rating from 1 to 10.

1 page questionnaire
10 minutes
Each team member individually
Excel database
Feedback in radar plot

[Feedback for the teams]



[CPSET]

- More information on development and validation or to receive a copy of the CPSET:
- Kris.Vanhaecht@med.kuleuven.be



The effectiveness of clinical pathways for inpatients heart failure treatment: results of a multi-centre randomized controlled trial in Italy

Prof. Massimiliano Panella,

Gardini A, Noto G, Tangolo D, Apicella A, Fraternali PL, Dardanelli R,
De Marchi ML, Marchisio S, Pantaleoni M, Di Stanislao F.



London, October 25th 2006

The objective

- To evaluate the impact of the implementation of clinical pathways for heart failure in hospital by means of a randomized controlled trial

[Study design (1)]

- Cluster multi-centre randomized controlled clinical trial
- Process and outcomes indicators
- Comparison of clinical pathways with the usual care
- Randomization of hospitals instead of patients



[Study design (2)]

- Sixteen hospitals asked to implement the clinical pathway for heart failure
- Fourteen community hospitals selected and randomized
- Selection based on the comparability of location, patient population, facilities and teaching status



[Study evaluations]

- Primary outcome measure in-hospital mortality
- Length and appropriateness of stay, rate of unscheduled readmissions, patients' satisfaction
- JCAHO core performance for HF
- Diagnostic and treatment patterns during stay



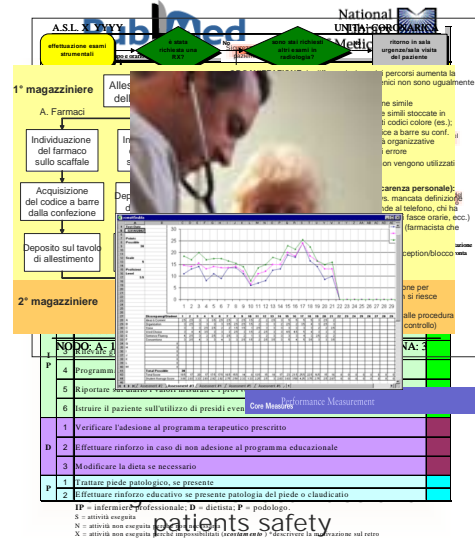
[Study sample]

- Patients with a principal diagnosis of heart failure (ICD-9 codes 428.xx)
- Mortality to 5% to be relevant
- Sample size of 424 patients, 80% power at 5% significance level (2 - sided)
- Inflation factors of 2.015 (7 clusters per arm, cluster size of 30 patients, ICC of 0.035)



Pathways' development

- Process analysis
- Evidence based healthcare
- Professionals' experience
- Patients focus (expected outcomes)
- Care categories
- New best practice/process
- Monitoring the process
- Variation grids
- Evidence based (clinical) indicators



Data analysis

- Descriptive statistics (Fisher exact and Kruskal Wallis test for categorical and continuous variables, respectively)
- Two sided test at significance level of 0.05 and power level of 0.80.



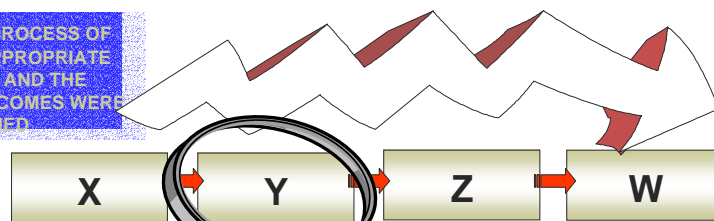
Outcomes indicators

- The results of this study are not published yet
- Please contact Prof. Panella for more information



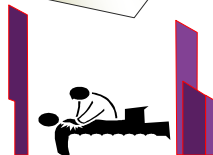
What did happen?

1. THE BEST PROCESS OF CARE, THE APPROPRIATE FUNCTIONS AND THE EXPECTED OUTCOMES WERE DEFINED



EVERYONE DID HIS JOB THE BEST WAY IN A LOGIC OF ACCOUNTABILITY

2. THE APPROPRIATENESS OF EACH STEP OF THE CARE CRITICALLY WAS MONITORED



3. THE RESULTS OF EACH STEP OF THE PROCESS OF CARE AND OF THE SYSTEM OF CARE WERE MEASURED



[Some comments...]

- Heart failure involves several professionals, which can result in poor coordination or inefficiencies in patient treatment (usual care)
- Pathways reduced mortality and improved the quality of the care provided to the patients
- Team working was the main determinant of the success
- Pathways created a constant dialogue within the teams, ensured that critical areas of treatment were not under/overlooked, prevented unnecessary delays or variations and promoted the best care



[Conclusions]

- These results are reliable because randomized controlled trials are widely accepted as the most reliable method of determining effectiveness
- Yes, clinical pathways can work!



Summer School & Contact Persons

- We would be happy to welcome you at the E-P-A summer school on care pathways from 17-21 September 2007 at Lago d'orta, Italy
- More information: www.E-P-A.org



- If you are interested in becoming E-P-A contact person in your country, please contact us.

