THE CENTER FOR CASE MANAGEMENT

New Definition

Karen Zander RN, MS, CMAC, FAAN: Editor

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CareGraph™ Clinical Progressions: First Substantive Breakthrough since Clinical Paths

Introduction

It has been twenty years since the first clinical path was developed at New England Medical Center Hospitals in Boston. After a generation of experience with the pros and cons of clinical paths, CareGraph™ clinical progressions are a breakthrough in the creation of a "kinder, gentler", more flexible approach to planning, organizing, and evaluating the outcomes of care. A CareGraph™ is an outcome evaluation tool that describes incremental changes from 0-4 in the clinical status of acutely ill patients, organized by Assessment Category and timeframe, enabling a rapid visual comparison of clinical progressions and their variations.

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CareGraphs™ have been used for over a year at Trinity Regional Medical Center, Rock Island, IL and has met with substantial success and approval by physicians, multidisciplinary staff, case management professionals, and the Iowa Health System.[1] Outside evaluators such as Pat Potter[2] and the JCAHO (2005) have also been positive.

The two types of CareGraphs™ are 1) *Generic Acute Care*: Four types of generic clinical progressions that can be applied to patients in medical-surgical areas, OB, pediatrics, and behavioral health, and 2) *DRG-specific*: Pregraphed shadow control lines show how patients within one standard deviation of normal distribution might progress clinically in each of the Assessment categories. CareGraphs™ are a new entry to the options for structured care methodologies to guide the content and documentation of care.[3] Their predecessors are OASIS[4] for home care and MDS[5] for long-term care. However, CareGraph™ goes beyond assessment to aggressively evaluate and communicate ever-changing care outcomes every 8 hours.

Background

The critical/clinical path was actually the third version of a tool that began as a Case Management Plan, experimentally reduced down to a Timeline of activities across units, and then reorganized as a clinical path and eventually enhanced as a full-fledged CareMap® System. Since that time, clinical paths and their more complete version, the CareMap®, have been

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CareGraph™ Clinical Progressions

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implemented around the world in settings from Neonatal ICU to Hospice, and to levels of care ranging from outpatient procedures, acute care, home care, and disease management. They have either mirrored or created new patterns of collaborative care, and for a long time were the greatest positive influence available for helping clinicians adapt to expectations for shortened lengths of stay (LOS), increased efficiency, and other goals. In all of their iterations and applications[6] they have served as a viable way to recognize and discuss patterns, negotiate, and re-choreograph the interventions of key disciplines and departments in the care of similar patient populations. Critical/clinical paths and CareMap® tools have also been the basis of new approaches to patient education tools, new ways to understand interdependencies between disciplines, and early methods to track performance and promote continuous quality improvement. Clinical paths had weaknesses as well, many of which were hoped to be alleviated by the advent of the electronic medical record. Unfortunately, user-friendly clinical computerization remains a barrier to customized and individualized care management via clinical paths.

Until now, there has not been an alternative (on paper or otherwise) that could capitalize on the clinical path's strengths of planning, documenting, and evaluating multidisciplinary, outcome-driven care across time and place and minimize the weaknesses; ie

- Many organizations found the upkeep of content and requirements of staff to use the paper paths was too burdensome.
- Many organizations never truly converted their other forms or practices to dovetail with the items on the paths.
- A majority of patients deemed appropriate for an acute care admission now have many co-morbidities that create more variance, which requires more documentation than nurses and others are willing to do.
- CCM evaluated that most clinical paths were heavily focused on the items ordered by physicians, but still weak on outcomes and intermediate goals per time increments.
- Very few organizations developed a full compliment of tools, to manage 100% of their patients 100% of the time (case-type specific as well as generic tools).

In fact, clinical path and CareMap use began to diminish in the US around the mid-90's and are only recently having a resurgence because:

- Core measures, quality indicators, and other requirements for public reporting and Pay for Performance models are requiring revisions in clinical documentation tools and easy transfer of specific data points.
- More hospitals and health systems are preparing to purchase a comprehensive information system, but are demanding better functionality, information transfer, as well as robust content. CPOE (Computerized Physician Order Entry) will be required so MD orders do not have to be included on a CareGraph™. CPOE is becoming the lynchpin of safety initiatives.
- Nursing and others have even less time to document than 20 years ago

Function

In acute care, one standard Med-Surg CareGraph™ per patient is used every shift to evaluate the condition of a patient in key and comprehensive categories. The evaluating professional circles the correct number that corresponds to the definition and draws

Figure 1

Central Components:

- ✓ *Assessment Categories*, such as Respiratory, Neurological, Pain, Psychological, Skin/Wound, etc. Categories are institutionally-defined
- ✓ Descriptions of *incremental ratings from 0-4*, 0 being the healthiest state, 4 being the most debilitated/life-threatening state. Ratings are validated by multidisciplinary clinical experts within each institution.
- ✓ *Date columns* are listed minimally by day, but may be smaller or larger increments of assessment
- ✓ *Signature lines* for assessors/raters
- ✓ *Control lines:* On pre-printed case-type-specific documents, there is a control line in shadow- gray depicting the common clinical course for patients within one standard deviation of normal distribution (68%). This control line represents the typical trajectories of patients' conditions within each Assessment Category. Control lines must be reprinted as best practices, new technologies, etc change recovery patterns for large groups of homogeneous patients.

Related Components:

- ✓ Initial Nursing and other assessment tools used on admission to a care area
- ✓ Progress notes that explain the difference between the control line and the actual patient condition assessed in that category for that date (ie variance)
- ✓ Kardex or treatment plan that describes the recommendations and decisions that will continue to move the patient toward a better condition.

Figure 2

IMMUNOLOGICAL/INFECTION: (Identify focus)	Admit Baseline Date	Date	Date	Date	Date
	12/12/05	*12/13/05*	*12/14/05*	*12/15/05*	*12/16/05*
4 – Multi-system failure or absolute neutrophil count <1500 cells/mm^3	4	4	4	4	4
3 – Has sepsis with or without + blood culture, no signs/symptoms of shock, with or without neutropenia	3	3	3	3	3
2 – Is febrile or has signs/symptoms of infection and is immunosuppressed	2	2	2	2	2
1 – Temperature declining or is afebrile or responding to prescribed therapy or resolving neutropenia or immunosuppressed	1	1	1	1	1
0 – Has absence of any signs/symptoms of infection	0	0	0	0	0

a line from the last time period's evaluation. The CareGraph™ solves the problems and challenges listed above. It is extremely visual and descriptive for today's "shorthand", bullet-pointed conversations. Unlike care plans, which are done once (or not at all) and rarely referred to again, the CareGraph™:

- Provides a common language for nurses, case managers, social workers, dieticians, physical therapists, and physicians
- Promotes collaboration and dialogue; everyone working toward defined outcomes. For example, Care Coordination Rounds are not regurgitations of shift report, but now focus on numbers and strategy. "We identify the top 3 focuses and discuss Plan A and Plan B (for discharge)"
- Serves as a basis for critical thinking
- Converts the focus of front-line nurses from tasks to pro-active planning about outcomes: "CareGraphs™ are a daily thought process that lead you into the care of the patient; ie formulate the Plan for the Day, so you are planning without even knowing it." (D. Vande Moortel)
- "Gives clinicians a global look by setting new priorities every day; ie Where have you been, where are you now, where do you want to go?" (B. Johnson)
- Increases confidence of clinical staff: "I am more confident when I talk to the doctor; it makes me feel more professional"[7]
- Supplies a history of progress for float and per diem nurses from previous shifts; they can carry it with them through their shift on their clipboard for communication

Summary

In summary, "CareGraph™ is the visual summary of the initial and ongoing assessments of nurses and other professionals, allows for gradations instead of absolutes, and serves as the springboard to interventions"[8] Plans are to eventually use the CareGraph™ to:

- Provide acuity scores directly from real-time documentation
- Anticipate appropriate post-acute level of care by review of the areas in which patients have "plateaued" in their progressions
- Correlate with research into best practices; ie Which interventions create the most desired and comprehensive progressions?
- Use as a visual tool to teach patients and families

Endnotes

1 Leadership includes Lori Crippin, Becky Johnson, Cathy Kearns, and Dawn VandeMoortel. Trinity Regional Medical Center and its Iowa Health System affiliates hold a CCM license to use CareGraph™ and its iterations. They are collaborating with CCM to automate CareGraph™ on the IDX system.

2 Pat Potter, PhD, RN, CMAC, FAAN is Research Scientist at Barnes Jewish Christian Health System in St. Louis and co-author of *Fundamentals of Nursing* (Mosby).

3 Structured Care Methodologies is a useful "umbrella" term that includes order sets, guidelines, algorithms, protocols, clinical paths, and other tools. (Source: Cole, L., et al, "Structured Care Methodologies: Tools for Standardization and Outcomes Measurement", Nursing Case Management (Vol 1, No. 4) Sept/Oct 1996

4 OASIS = Outcomes and Assessment Information Set

5 MDS = Minimum Data Set

6 The most current substantive reference is The Journal of Integrated Care Pathways from the Royal Society of Medicine Press, UK. *www.rsmpress.co.uk*

7 Jeanie Larson, RN, Staff Nurse, Step-down Unit, Trinity Regional Medical Center, Rock Island, IL

8 Cathy Kearns, Karen Zander, Becky Johnson

WHAT?

- ✓ An evaluation tool that measures incremental changes from 0-4 in 14 physical and interpersonal parameters
- ✓ One Acute Care Medical Surgical CareGraph™ covers all Diagnoses/DRGs! Total Individualization for Patients
- ✓ Rapid Visualization, Documentation and Reporting for Nursing, Physicians, Case Managers, and Multi-disciplines
- ✓ Supports the clinical judgment of caregiving professionals

WHY?

- ✓ Staff Nurses give it high marks on ease and pragmatic sense
- ✓ Doctors like the graphs and the concise communication
- ✓ Case Managers and direct care delivery staff finally have a common language
- ✓ Patients and Families are quickly and comprehensively evaluated along 14 parameters, providing continuity of care regardless of part time and float staffing patterns
- ✓ Defines all acute levels of care, from ICU to home
- ✓ Demonstrates whether the interventions are producing the quality outcomes
- ✓ Dovetails with MD Orders, Treatment Plans, Criteria without duplication
- ✓ Adaptable to Electronic Medical Record

"It clearly provides a holistic measure of a patient's progress."

Pat Potter, PhD, RN, CMAC, FAAN,
Research Scientist, BarnesJewishChristian Health System,
and co-author *Fundamentals of Nursing*

CCM

THE CENTER FOR CASE MANAGEMENT

CareGraph™ Progressions:

The Flexible, Visual Clinical Path!

HOW?

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WHEN?

Available Immediately

$4,750 includes a department license to use and reproduce CareGraph™, as well as 5 versions (not available singly) with **Guidelines for Use**:

1. Acute Care Generic Medical-Surgical (including ICU)
2. Inpatient Obstetrics
3. Acute Care Pediatrics
4. Behavioral Health
5. Community Acquired Pneumonia (3 day control chart)

You also receive a site license for your facility. This is a one-time, perpetual license that covers the implementation of these standard and your modified CareGraph™ Progression on paper.*

There is an optional one-day Site Visit to Trinity Medical Center, Rock Island, Illinois (additional fee) to see CareGraph™ Progressions fully implemented.

CareGraph™ was developed in partnership with L. Crippen, C. Kearns, B. Johnson, D. VandeMoortel, and the clinical staff at Trinity Medical Center, Rock Island, IL.

* Information System Vendors should contact The Center for Case Management for separate license agreement.

ORDER FORM

❒ **YES!** Please send me 5 CareGraph™ Progressions with guidelines for use and a site license for my facility!

❒ Send me more information about a site visit to Trinity Medical Center to see CareGraph™ in action

	$4,750.00
Shipping & Handling	$ 15.00
TOTAL	$4,765.00

3 ways to order:

your check payable in U.S. funds to
The Center for Case Management
6 Pleasant Street
South Natick, MA 01760

Order online: **www.cfcm.com**

Fax this form: **508-655-0858**

Questions? Call us: **508-651-2600**

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