Critical Pathway Development: An Integrative Literature Review

Andy Harkleroad, Dennis Schirf, Jack Volpe, Margo B. Holm

Key Words: outcome and process assessment (health care) • patient care team

Objective. The purpose of this integrative literature review was to summarize and analyze the methods used to develop critical pathways.

Method. Relevant articles published in occupational therapy, physical therapy, nursing, and medical journals between 1992 and 1997 were reviewed to extract various methods and the steps or criteria used for each method.

Results. Nine approaches to critical pathway development and the steps or criteria involved in each method are presented in tabular format. The most detailed approach was used as a gold standard, and the other approaches were compared to it.

Conclusion. This review should assist occupational therapy practitioners working with various diagnostic populations to understand the methods used, and steps involved, in the development of critical pathways. It should also serve as a resource for practitioners who have the opportunity to participate in critical pathway development.


Background and Significance

Health care reform, managed care, and the current outcomes and guidelines movement have generated a rapid acceleration toward the development and implementation of critical pathways (Greenfield, 1995). According to Christiansen (1996), futurists anticipate that efforts to control health care costs through managed care initiatives will continue, as will emphasis on outcomes and the use of cost-effectiveness strategies to influence health care decision making. Four professional values of occupational therapy, according to Christiansen (1996), are consistent with trends in managed care: (a) the collaborative method of service delivery, (b) an emphasis on quality of life, (c) a belief in the importance of promoting health and preventing illness and injury, and (d) a strong moral foundation for guiding treatment decisions. Many occupational therapists will be required to assist or have input in the development of critical pathways; however, they may have difficulty determining the most effective approach to developing or assisting in the development of a critical path because of the lack of knowledge about the process or access to relevant resources.
while also monitoring quality of patient care. Pathways are being integrated at all levels of care. The steps in critical pathways are targeted so that a patient reaches specified outcomes by a preset time frame. Critical pathways enable clinicians to know the predetermined time frames for initiation of treatment, generalized treatment protocols, and discharge timelines for specific conditions.

Standardizing the process by which patients receive care through the use of methods such as critical pathways has advantages. Such methods can result in shortened stays, more efficient use of resources, more communication between disciplines, and use of less expensive methods of treatment without compromising quality of care (Coffey et al., 1992). The concept of critical pathways is borrowed from the theories of Continuous Quality Improvement (CQI), which influenced the comeback of U.S. industry and manufacturing in the world market. Occupational therapists need to be involved in the development of critical pathways because pathways will likely become a dominating force behind health care services. If occupational therapy practitioners are not represented in the development of critical pathways, their contributions may be minimized. The purpose of this integrative literature review was to gain an overview of current methods of critical pathway development for various conditions.

Method

Operational Definitions

In addition to the previous definition of a critical pathway, the following operational definitions were used:

• Variance: “Detours, or deviations from the critical path. They may be positive or negative” (Coffey et al., 1992, p. 47).
• Case coordinator or manager: A designated member of a team responsible for “the ongoing coordination, monitoring, and evaluation of the patient’s progress on the critical path” (Coffey et al., 1992, p. 47).

Procedure

Articles in MEDLINE and the Cumulative Index to Nursing and Allied Health Literature were selected for review if they (a) were referenced articles from occupational therapy, physical therapy, nursing, and medical journals; (b) had the key words critical pathway, clinical guidelines, care maps, or paths; (c) included the developmental steps for critical pathways; (d) included occupational therapy services; and (e) were published between 1992 and 1997. Sixteen articles met the inclusion criteria, of which nine were included in the review. The first three authors combined their individual search results and, with the fourth author, selected a configuration of articles that they believed offered a variety of processes for showing critical pathway development and that were particularly relevant to the practice of occupational therapy. The final nine articles selected were mutually agreed on by all authors. Table 1 includes a brief synopsis of the nine articles and lists their authors, their diagnostic focus, and the articles’ unique features.

Data Analysis

Steps used in developing critical pathways were arranged both in order (see Table 2) and in a tabular matrix (see Table 3) to illustrate similarities and differences between pathway development methods. Gordon’s (1995) delineation of pathway development was the most comprehensive and used four phases and a total of 24 steps. For this reason, the other eight articles were compared to the Gordon article. Steps that were not found in the Gordon article, but were found in other articles, are included at the bottom of Table 3 and are labeled with the authors’ names.

Table 1

<table>
<thead>
<tr>
<th>Authors</th>
<th>Purpose of the Article</th>
<th>Diagnostic Focus</th>
<th>Unique Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gordon (1995)</td>
<td>Describe pathway development</td>
<td>Article published in a burn journal</td>
<td>Describe specific steps</td>
</tr>
<tr>
<td>Coffey et al. (1992)</td>
<td>Provide introduction to critical pathways</td>
<td>Pathway development no specific pathway</td>
<td>Detailed history of critical pathway development</td>
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<tr>
<td>Cordell (1995)</td>
<td>Discuss the rationale for critical pathways</td>
<td>Pathway development no specific pathway</td>
<td>Included steps to identify management support, savings, and commend team support</td>
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<tr>
<td>Ferguson (1993)</td>
<td>Discuss development of critical pathways at Johns Hopkins</td>
<td>Pathway development</td>
<td>Stressed need to collaborate with physicians no specific pathway</td>
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<tr>
<td>Giffin and Giffin (1994)</td>
<td>Show benefits of critical pathways</td>
<td>Pathway development no specific pathway</td>
<td>Focused on savings generated by pathway</td>
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<tr>
<td>Ibarra, Titler, and Reiter (1996)</td>
<td>Show importance of the members of the development team</td>
<td>Pathway development no specific pathway</td>
<td>Stressed the standardization of physician orders</td>
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<tr>
<td>Pearson, Gowart-Fisher and Lee (1995)</td>
<td>Discuss the specific goals of institutions using critical pathways</td>
<td>Pathway development no specific pathway</td>
<td>Provided a list of specific goals for pathway development</td>
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<tr>
<td>Reinhart (1995)</td>
<td>Describe the development of a specific pathway</td>
<td>Acute myocardial infarction critical pathway</td>
<td>Described development, implementation, and use of pathways in a critical care unit</td>
</tr>
<tr>
<td>Wieczorek (1995)</td>
<td>Describe the development of a specific pathway</td>
<td>Coronary artery bypass surgery critical pathway</td>
<td>Described development of operating room pathway</td>
</tr>
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Table 2
Pathway Steps by Author

<table>
<thead>
<tr>
<th>Author</th>
<th>Phase</th>
<th>Steps</th>
</tr>
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</table>
| Gordon (1995)           | Phase 1: Focus and Recognition | 1. Evaluate baseline data to identify need  
                          |                   | 2. Establish preliminary goals and measurable outcomes  
                          |                   | 3. Research literature  
                          |                   | Phase 2: Evaluation and Analysis | 1. Analyze data  
                          |                   | 2. Implement CQI (Continuous Quality Improvement)  
                          |                   | 3. Chart review for most common practice  
                          |                   | 4. Identify additional data for better focus on problem areas  
                          |                   | 5. Evaluate benefits and harms  
                          |                   | Phase 3: Development | 1. Assemble multidisciplinary team  
                          |                   | 2. Begin with a blank sheet of paper  
                          |                   | 3. Focus on crucial elements  
                          |                   | 4. Distribute pathway draft to committee members  
                          |                   | 5. Review for resource and feasibility problems  
                          |                   | 6. Develop forms for documentation  
                          |                   | 7. Develop system for variance analysis  
                          |                   | 8. Ensure pathways are tied into other hospital projects  
                          |                   | 9. Set a timetable  
                          |                   | 10. Carefully plan pathway implementation  
                          |                   | 11. Allow sufficient time for staff education  
                          |                   | Phase 4: Implementation and Evaluation | 1. Send copies to relevant departments and physicians  
                          |                   | 2. Check compliance frequently  
                          |                   | 3. Compare results with baseline data and analyze  
                          |                   | 4. Look at variances, discuss with departments  
                          |                   | 5. Communicate results to team and modify pathway  
                          |                   | Giffin and Giffin (1994) | Phase 1: Initial Education and Committee Formation | 1. Develop knowledge of benefits and costs  
                          |                   | 2. Establish senior management or clinical steering committee  
                          |                   | 3. Identify target conditions  
                          |                   | Phase II: Development | 4. Identify project manager  
                          |                   | 5. Form multidisciplinary team  
                          |                   | 6. Educate team  
                          |                   | 7. Research existing critical paths for case type  
                          |                   | 8. Identify current practices  
                          |                   | 9. Develop, review, and refine initial critical path tool  
                          |                   | 10. Complete paperwork design, production  
                          |                   | Phase III: Pilot Implementation | 11. Begin in-service training across departments  
                          |                   | 12. Implement process  
                          |                   | Phase IV | 13. Evaluate, revise, fully implement  
                          |                   | Phase V: Periodic Review of Variance Reports | 14. Review monthly, quarterly, annually  
                          |                   | 15. Identify problems, revise critical pathway  
                          |                   | Phase VI | 16. Integrate process into medical records, documentation tools, and procedures  
                          |                   | Phase VII | 17. Evaluate long-term information systems' needs created by pathway and other case management, quality improve ment, and utilization review tools  
                          |                   | 2. Appoint a development team  
                          |                   | 3. Select characteristics of the path  
                          |                   | 4. Identify current practice pattern  
                          |                   | 5. Gain agreement and acceptance of components and timing of pathway  
                          |                   | 6. Pilot the pathway  
                          |                   | 7. Identify and monitor variances  
                          |                   | 8. Document outcomes  
                          |                   | 9. Target strategies for improvement  
                          |                   | 10. Document savings  
                          |                   | 11. Place all patients on pathway  
                          |                   | 12. Communicate successes  
                          |                   | 2. Form task force of stakeholders  
                          |                   | 3. Define target condition  
                          |                   | 4. Identify current practice pattern  
                          |                   | 5. Gain agreement and acceptance of components and timing of pathway  
                          |                   | 6. Pilot the pathway  
                          |                   | 7. Identify and monitor variances  
                          |                   | 8. Document outcomes  
                          |                   | 9. Target strategies for improvement  
                          |                   | 10. Document savings  
                          |                   | 11. Place all patients on pathway  
                          |                   | 12. Communicate successes  
                          |                   | Ferguson (1993) | Reinhart (1995) | 1. Identify the case type for which the critical path will be developed  
                          |                   | 2. Identify the multidisciplinary team and recruit experts  
                          |                   | 3. Collect data by reviewing established standards of care for the select care type  
                          |                   | 4. Determine the length of stay for the care type  
                          |                   | 5. Incorporate the data into the chosen format  
                          |                   | 6. Submit draft to consultants  
                          |                   | 7. Revise until accepted by consultants  
                          |                   | 8. Present pathway to committees for approval  
                          |                   | 9. Incorporate committee changes into final product  
                          |                   | 10. Pilot pathway for 3 months  
                          |                   | 11. Allow sufficient time for staff education  
                          |                   | 12. Implement process  
                          |                   | 13. Evaluate, revise, fully implement  
                          |                   | 14. Review monthly, quarterly, annually  
                          |                   | 15. Identify problems, revise critical pathway  
                          |                   | 16. Integrate process into medical records, documentation tools, and procedures  
                          |                   | 17. Evaluate long-term information systems' needs created by pathway and other case management, quality improvement, and utilization review tools  
                          |                   | 2. Form task force of stakeholders  
                          |                   | 3. Define target condition  
                          |                   | 4. Identify current practice pattern  
                          |                   | 5. Gain agreement and acceptance of components and timing of pathway  
                          |                   | 6. Pilot the pathway  
                          |                   | 7. Identify and monitor variances  
                          |                   | 8. Document outcomes  
                          |                   | 9. Target strategies for improvement  
                          |                   | 10. Document savings  
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                          |                   | 12. Communicate successes  
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                          |                   | 16. Integrate process into medical records, documentation tools, and procedures  
                          |                   | 17. Evaluate long-term information systems' needs created by pathway and other case management, quality improvement, and utilization review tools  
                          |                   | 2. Form task force of stakeholders  
                          |                   | 3. Define target condition  
                          |                   | 4. Identify current practice pattern  
                          |                   | 5. Gain agreement and acceptance of components and timing of pathway  
                          |                   | 6. Pilot the pathway  
                          |                   | 7. Identify and monitor variances  
                          |                   | 8. Document outcomes  
                          |                   | 9. Target strategies for improvement  
                          |                   | 10. Document savings  
                          |                   | 11. Place all patients on pathway  
                          |                   | 12. Communicate successes  
                          |                   | Ferguson (1993) | Reinhart (1995) | 1. Identify the case type for which the critical path will be developed  
                          |                   | 2. Identify the multidisciplinary team and recruit experts  
                          |                   | 3. Collect data by reviewing established standards of care for the select care type  
                          |                   | 4. Determine the length of stay for the care type  
                          |                   | 5. Incorporate the data into the chosen format  
                          |                   | 6. Submit draft to consultants  
                          |                   | 7. Revise until accepted by consultants  
                          |                   | 8. Present pathway to committees for approval  
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                          |                   | 16. Integrate process into medical records, documentation tools, and procedures  
                          |                   | 17. Evaluate long-term information systems' needs created by pathway and other case management, quality improvement, and utilization review tools  

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Table 3
Matrix of Gordon’s (1995) Critical Pathway Development Steps and Pathway Steps Suggested by Other Authors

<table>
<thead>
<tr>
<th>Gordon’s Steps</th>
<th>A</th>
<th>B</th>
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<th>D</th>
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<th>F</th>
<th>G</th>
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<td>Phase 1: Implementation and Evaluation</td>
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<td>1. Evaluate baseline data to identify need</td>
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<td>2. Establish preliminary goals and measurable outcomes</td>
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<td>3. Research literature</td>
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<td>Phase 2: Evaluation and Analysis</td>
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<td>4. Analyze data</td>
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<td>5. CQI (Continuous Quality Improvement)</td>
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<td>6. Chart review for most common practice</td>
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<td>7. Identify additional data for better focus on problem areas</td>
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<td>8. Evaluate benefits and harms</td>
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<td>Phase 3: Development</td>
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<td>9. Assemble multidisciplinary team</td>
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<tr>
<td>10. Decide on pathway and length of stay; develop format</td>
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<td>5</td>
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<tr>
<td>11. Focus on critical elements</td>
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<td>12. Distribute pathway draft to committee members</td>
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<td>13. Review for resource and feasibility problems</td>
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<td>14. Develop forms for documentation</td>
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<td>15. Develop system for variance analysis</td>
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<td>16. Ensure that pathways are tied into other hospital projects</td>
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<td>12</td>
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<td>17. Set a timetable; pilot pathway</td>
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<td>18. Carefully plan pathway implementation</td>
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<td>19. Allow sufficient time for staff education</td>
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<td>Phase 4: Implementation and Evaluation</td>
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<td>20. Send copies to relevant departments</td>
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<td>21. Check compliance frequently</td>
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<td>22. Compare results with baseline data and analyze</td>
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<td>10</td>
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<td>23. Look at variances, discuss with departments</td>
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<td>24. Communicate results to team and modify pathway</td>
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<td>Other steps (not included in Gordon’s pathway)</td>
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<td>25. Document savings (Cordell, 1995)</td>
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<td>26. Identify sponsors and management support (Cordell)</td>
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<td>27. Identify project manager (Giffin &amp; Giffin, 1994)</td>
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<td>28. Integrate process into medical records (Giffin &amp; Giffin)</td>
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<td>29. Evaluate long-term needs (Giffin &amp; Giffin)</td>
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<td>30. Standardize physician orders (Ibarra, Titler and Reiter, 1996)</td>
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<td>31. Collaborate with physicians (Ferguson, 1993)</td>
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<td>32. Communicate success and commend effort of team (Cordell)</td>
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Typical Phases and Steps of Pathway Development

Focus and Recognition Phase

For the first phase of critical pathway development, Gordon (1995) recommended three steps, beginning with evaluation of baseline data to identify the need for the critical pathway. Seven of the nine authors began with this step. Coffey et al. (1992) stated, “Diagnoses or procedures can be selected based on case volume, financial impact, profitability, quality assurance issues and physician or payor interests” (p. 51). High volume of cases was the most common reason mentioned for those who began pathway development with selection of a condition. Cordell (1995) and Giffin and Giffin (1994) did not select high volume as a first step, but included it later in their developmental process.

Step 2 is to “establish preliminary goals and measurable outcomes” (Gordon, 1995, p. 198) because this will assist in determining what care is essential to reach the desired outcome. This step was also used by Coffey et al. (1992), who stated that one must “identify the key processes, decision criteria, and outcome measures for each critical path” (pp. 51–52). Step 3 is to review the literature to obtain the latest information relevant to the pathway. This step was also used by Pearson, Goulart-Fisher, and Lee (1995) in their development process to help guide the use of various clinical tests and interventions.

Asses and Analyze Phase

The second phase of critical pathway development includes five steps. The first—data analysis—is conducted to determine whether performance can be improved (Gordon, 1995), to examine why and whether a procedure contributes value, and to discover whether barriers to changing practices exist (Coffey et al., 1992). Wicczorek (1995) used this type of self-analysis in critical pathway development. The second step of this phase is to determine whether a performance gap is due to faulty decision making of providers, technical or process problems within an institution, or both. Critical pathways help with performance problems but do little about process problems other than identify them (Gordon, 1995). This second step was not included in the other eight articles reviewed. Step 3 of this phase—chart review to identify the most common practices—was identi-
ified as necessary in seven of the nine articles reviewed. Both Ferguson (1993) and Wieczorek (1995) mentioned chart review as methods of data collection.

Step 4 of this phase is to identify additional data to focus on problem areas (Gordon, 1995). Ferguson (1993) also included this step under a broader heading of data collection with five subheadings, which included length of stay, nursing diagnoses, patient-centered outcomes, critical events, and sequencing of critical events. Step 5 of this phase includes evaluating clinical benefits and harms to “identify which processes and/or practices produce the best clinical outcomes” (Gordon, 1995, p. 198). Gordon discussed the necessity of writing guidelines in the “grey zone,” which would avoid cookbook medicine and allow for uncertainties about interventions, differences in patients, and differences in opinions about expected outcomes. Gordon was the only author to include this type of checkpoint in the pathway development process.

Development Phase

Gordon’s (1995) third phase—development—includes 11 steps, with Step 1 being the formation of a multidisciplinary team, and was used by all authors. The team should include “all key caregivers and affected personnel” (Coffey et al., 1992, p. 51). Consultants and a multidisciplinary team bring professional expertise to the development table and the knowledge and perspective needed to distinguish the entire care process (Ferguson, 1993; Pearson et al., 1995). Furthermore, inclusion of each discipline in the development phase helps ease the transition into the implementation phase of the pathway (Ibarra, Titler, & Reiter, 1996).

Step 2 of this phase, development of a format and decisions about pathway length, was included in seven of the articles selected. Gordon (1995) suggested starting with a blank sheet of paper, with the number of columns equal to the desired length of stay and stages of care. Pearson et al. (1995) stated that it was important to include in the format all actions that have taken place, but that this inclusiveness can make it difficult for the reviewing physician. To remedy this difficulty, Pearson et al. suggested that “key” elements that may be of particular interest to physicians be identified in bold print. Gordon’s Step 3 of this phase is “to focus on critical elements to clarify the characteristics necessary for the pathway, which narrows the focus on the expected outcomes” (p. 199). This approach allows team members to eliminate those elements that are less important to the expected outcomes. Pearson et al. (1995) stated that active participation of all team members and physicians within the institution are integral to the success and integration of pathway development, and because this step focuses on outcomes, it identifies the pathway’s significance.

Gordon’s Step 4 of this phase is “to distribute the draft to committee members” (p. 199) so that reviewers can analyze the data to ascertain whether outcomes can be obtained. Gordon (1995), Ferguson (1993), and Wieczorek (1995) agreed that this step enabled preparation for modifications to the pathway, including the writing of specific questions to guide committee members in their review of the pathway (Ferguson 1993).

Step 5 of this phase is to review the pathway for resource and feasibility problems, especially to determine whether recommendations based solely on research findings can be applied clinically (Gordon, 1995). Cordell (1995) added that team members should review all intervention patterns that could have an impact on the pathway. This step was designed to enable team members to choose the correct intervention and reduce the need for modification.

Development of pathway forms for documentation, Step 6 of this phase, was considered an essential element to the process of outcome attainment (Coffey et al., 1992; Giffin & Giffin, 1994; Gordon, 1995; Wieczorek, 1995). This step is critical for ensuring follow-through by staff members because of time constraints (Gordon, 1995) and should be designed to fit the needs of staff on all units (Wieczorek, 1995). The forms become “the core for recording and managing quality assurance indicators, acuity systems, materials management, teaching programs as well as streamlining physician’s orders” (Giffin & Giffin, 1994, p. 19), and some pathway forms are used as a means to streamline documentation and replace routine progress notes and charting.

Step 7 of this phase is to establish a system for variance analysis, which will clarify how to document variances, who documents variances, and what variances are going to be tracked, so modifications to the pathway can be made (Gordon, 1995). Variance data also can enable continuous improvement of the pathway (Pearson et al., 1995).

Step 8 includes “incorporating the pathway within the institution’s current improvement projects to allow a multitude of personnel to become involved” and to ensure “that co-workers will contribute to the educational process and improve the overall clinical care” (Gordon, 1995, p. 199). Step 9 of this phase is to establish a timetable for piloting the critical pathway. According to Gordon’s (1995) review of the literature, a 3-month to 6-month timetable is realistic. Cordell (1995) recommended no specific time frame or length but did state that all patients identified should not be placed on a pathway while it is still in the development stages. Ferguson (1993) agreed with a piloting program for a newly developed pathway but gave no specific guidelines to follow other than a 3-month limit.

Step 10 of the development phase is to carefully plan pathway implementation. Step 11 is to allow time for staff education about the pathway and its implementation. This step is important to alleviate fears about the process and about consequences if patients do not specifically follow pathway goals (Pearson et al., 1995). When staff members are educated over time, they are more comfortable with the pathway and its documentation, thus minimizing difficul-
ties during the implementation process. This step also can "ensure correct documentation for those patients who fall within or outside the pathway so variances can be accurately tracked" (Coffey et al., 1992, p. 52).

Implementation Phase

The fourth phase of critical pathway development is implementation of the pathway. For Gordon (1995), this phase includes the five steps of distributing the final draft to the relevant players, establishing the start-up date of the pathway, checking for compliance with the developed pathway, comparing client outcomes to baseline data, examining variances, and communicating concrete results to the departments involved. The other authors who identified steps in this phase were Coffey et al. (1992), Cordell (1995), Giffin and Giffin (1994), Ibarra et al. (1996), and Pearson et al. (1995).

Cordell's (1995) implementation step was initiated by simply putting all identified patients on the pathway and following through with an analysis of results, whereas Coffey et al. (1992) recommended assigning a case manager to track adherence to the pathway. Giffin and Giffin (1994) proposed implementation as a single step, with nurse managers or clinical department heads responsible for initiation of pathways. However, Giffin and Giffin believed that, with pathways, there was a shift from the individual accountability of a single case manager to a shared accountability of the multidisciplinary team. Ibarra et al. (1996) used the team approach to implementation, with the reservation that this initial start-up would be a learning process and that the data gathered would not be very accurate because everyone involved would still be learning the new system.

For a pathway to be successful, Pearson et al. (1995) believed that implementation of the pathway should have strong support from physicians and hospital leaders. Additionally, Pearson et al. recommended that education about the pathway and justification of its use should be provided for all hospital staff, including noninvolved personnel, in the implementation phase. Part of Gordon's (1995) implementation phase was to compare outcome results with baseline data and analyze them. Coffey et al. (1992) believed that information from the results should be used to effect any changes in variances, outcomes in general, and perceptions of patients and staff members. Cordell (1995) was mainly concerned with analyzing the impact of variances, whereas Giffin and Giffin's (1994) approach was to bring CQI into pathway development. Ibarra et al. (1996) looked at the outcome measures in terms of cost, patient satisfaction, health status, and employment.

The final step in Gordon's (1995) implementation phase was to communicate results with the multidisciplinary team. Only Cordell (1995) and Giffin and Giffin (1994) believed that this was a necessary step. Cordell's reasoning was that the dedication and commitment of the multidisciplinary team must be recognized, which would build momentum to continue the process with additional conditions. Giffin and Giffin, however, believed that this was the time to identify problem areas and make revisions with the approval of the multidisciplinary team. Giffin and Giffin also recommended that the implementation phase be used to explore new areas of research for selected departments of the team.

Other Steps

Several of the authors reviewed identified steps that were not itemized in Gordon's (1995) development path (see Table 2). For example, Cordell's (1995) process included documentation of savings as a means to calculate the cost of variances. A team could thus understand the potential costs of certain patient care decisions and show how each department could have an effect on the cost of patient care and contribute to controlling that cost. Cordell's process also includes identifying sustaining sponsors and gaining management support. This step is related to multidisciplinary teams.

Although seemingly contradictory to their viewpoint that accountability rests with the multidisciplinary team, Giffin and Giffin (1994) preferred identification of a single project manager. Similarly, Coffey et al. (1992) preferred a case manager who is responsible for tracking adherence to the pathway. Whereas Coffey's use of a case manager began with the developed pathway, Giffin and Giffin would have the project manager as a single point of contact between the multidisciplinary team members while the pathway was being developed.

Giffin and Giffin (1994) also believed that integrating the pathway into medical records is important to decrease demands on a hospital's record keeping and reporting requirements as well as to assess long-term system needs. Similarly, Ibarra et al. (1996) recommended the standardization of physician orders and a patient version of the pathway. In addition, Ferguson (1993) identified collaboration with physicians as imperative throughout pathway development.

The final pathway step outlined by Cordell (1995) was to communicate successes and to commend the effort of the multidisciplinary team in recognition of its work and commitment. This step is important to build momentum and continue the process for other conditions and patient populations. It also presents to others the advantages of using pathways.

Similarities and Differences

Table 3 presents a matrix based on Gordon's (1995) steps that enables the reader to determine whether, and at what point, the other authors included a specific step in Gordon's pathway development process. Similarities and differences in the pathway development process among the articles are categorized as follows: (a) steps used by Gordon and at least half of the other eight authors; (b) steps used only by Gordon; (c) steps used by other authors but not by Gordon.

Steps used by Gordon and at least half of the other...
authors. Eight steps were used by Gordon and at least half of the other eight authors (see Table 3). All authors used Steps 1 and 9, and Steps 6 and 10 were used by seven of the nine authors. Step 20 was used by six authors, and Steps 11, 17, and 22 were used by five of the authors.

Steps used only by Gordon. Table 3 indicates four steps used by Gordon, but none of the other authors. These were Steps 5, 8, 16, and 21.

Steps used by other authors but not by Gordon. Eight steps were found in the other articles but not found in Gordon. Steps 25 through 32 were not listed by Gordon, but were perceived by the other authors to be important.

Summary

Critical pathway use has changed the way practitioners approach intervention with their patients by making practitioners focus on essential elements of the pathway. Although many practitioners are judgmental about pathway use, the intent is to improve quality of care, lower inventory expense, increase patient satisfaction, reduce readmissions, and develop cohesive teams of health care professionals (Giffin & Giffin, 1994). An occupational therapist who is included in the pathway can provide specific knowledge and skills to a multidisciplinary team, thus benefiting patients throughout the continuum of care from the clinical setting to their home and work environments. Inclusion in critical pathway development will give occupational therapy practitioners the opportunity to educate physicians and other team members about occupational therapy and what the profession has to offer for improving patients’ quality of life. ▲

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