Interventions to overcome clinician- and patient-related barriers to pain management

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Background

- Certain barriers exist to managing chronic cancer pain, including under-prepared physicians, patient's apprehension about medications, and poor communication between patients and providers.
- In contrast to non-malignant pain, a consensus exists regarding the management of cancer pain.
- Narcotic painkillers (opioids) work by activating certain receptors in the brain that cause pain relief and are the strongest class of painkillers known to mankind.
- Aggressive treatment with opioids represents the standard of care for moderate to severe cancer pain.
- 30% to 60% of patients actively receiving cancer treatment have pain.
- 80% to 90% of these patients with cancer pain can have it significantly reduced when treated correctly.
- Regulatory barriers, physician-related barriers, and patient-related barriers can all impede the effective treatment of cancer pain.

Regulatory Barriers

- The regulation of narcotics exists to deny access to those who seek to abuse them for illegitimate purposes.
- This must be balanced against the need to supply these medications to patients who truly require narcotics for pain management.
- Health care systems tend to place a low priority on effective pain management.
- Interventions to decrease these barriers have been implemented in some areas.

Clinician-Related Barriers

- Some clinicians lack the proper knowledge to assess and treat cancer pain effectively.
- Many clinicians have exaggerated fears about the dangers of narcotic medications.
- Many clinicians are not trained to adequately assess pain, and commit several mistakes in doing so, such as: failure to ask directly about pain levels, inconsistent use of rating scales, and failure to document what has been assessed.
- Multiple studies have demonstrated that clinicians tend to underestimate patients' pain ratings, often by a significant amount.
- Even after adequate assessment, many physicians fail to prescribe adequate classes and doses of analgesics.
- A study of this effect demonstrated that 42% to 65% of patients were prescribed inadequate analgesics by their physicians.
- Other studies have shown that patients with good performance status, female gender, or minority status tend to be undertreated by their physicians.
- Lack of knowledge about managing cancer pain may be traced back to medical/nursing school curriculums.

Interventions for Clinicians
One widely distributed program designed to educate clinicians is the Pain Resource Nurse (PRN) program, a 3-day program designed to train nurses to be a resource in pain management. Another similar program is the Cancer Pain Education Program for patients and the Public (CPEPP). Both of these programs use highly trained instructors and are well attended, but neither program has been proven to change practice patterns or improve patient outcomes. Another program is known as the Role Model training program, and it pairs up physicians and nurses for a 3-day conference during which the pair develops an action plan to guide their behaviors in the clinical setting. Evidence exists that 64% of the Role Model program attendees had met some or all of their action plan goals within 12 months following attendance, although there is no data to suggest that this program improves outcomes.

Three randomized trials aimed at improving clinician knowledge about pain management and 2 trials aimed at improving pain assessment have been conducted. The results of all five of these trials are somewhat disappointing, demonstrating little positive effect with the planned interventions. One of the trials, by DuPen et al., showed that an algorithm-based approach could help improve patients' average pain severity, although it did not help with measures of patients' worst severity or overall quality of life. A different trial, by Trowbridge et al., showed that if clinicians are made aware of patients' pain levels, they respond with better practice patterns that can improve patient outcomes.

### Patient-Related Barriers

- Significant data suggests that a multitude of patient-related barriers exist which can lead to poor measures of quality of life.
- Patient-related barriers are generally related to a lack of knowledge or to misconceptions about pain medications.
- Certain common misconceptions include: belief that pain is an inevitable part of cancer, a fear of addiction, a fear of tolerance, concern about side effects, the belief that "good" patients do not complain about pain, the belief that describing pain may distract their physician from treating their cancer, the belief that analgesia will mask their physicians' ability to monitor their disease, and the belief that analgesics can suppress the immune system.
- Five randomized trials testing patient-related educational interventions have been performed. Most of these studies did not show any improvement in patient-related outcomes after the intervention was performed, although two of the studies did show that it is possible to increase patients' knowledge about pain management after an educational intervention.

### Conclusions

- Many barriers currently exist that decrease the likelihood that patients receive adequate treatment for their cancer pain.
- The solution to these problems seems to be more complex than simply creating an educational program for either physicians or patients.
- Perhaps educational interventions need to be applied to both providers and patients at the same time, so that there are no mixed messages about pain management.
- Clinicians and researchers must collaborate to further study this widespread problem.
- Algorithms may have a benefit to clinicians who treat cancer pain.
- It is difficult to sort out which aspect of a complex educational intervention is the effective aspect, but further study is needed to help sort this out.

### Scientific Implications

The authors do a nice job of summarizing the literature on educational interventions for both clinicians and patients that are designed to improve the management of cancer pain. The authors are correct in identifying numerous barriers to good care. One point that needs to be made is that pain management isn't the only area in which clinicians and patients need improvement. Many studies have shown that clinicians with specialized training and a narrower scope of practice are better at...
delivering certain types of medical care than their less-specialized peers. Also, a number of good studies have shown that patients can be notoriously non-compliant with a variety of different interventions. Perhaps the management of severe cancer pain should be left up to clinicians with a special interest and training in the field, or at least performed with their guidance. It requires a joint effort between both clinician and patient to achieve a good outcome, and it certainly makes sense that further interventions should focus on simultaneously educating both halves of the equation.