

**ORIGINAL RESEARCH**

# Supporting Better Access to Chronic Pain Specialists: The Champlain BASE™ eConsult Service

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**Introduction:** Excessive wait times for chronic pain are associated with significant reductions in quality of life and worse health outcomes. The Champlain BASE™ (Building Access to Specialists through eConsultation) eConsult service can improve access to specialist care for patients with chronic pain by facilitating electronic communication between primary care providers (PCPs) and specialists. We explored the content of eConsult cases sent to chronic pain specialists to identify the major themes emerging from exchanges between PCPs and specialists regarding patients with chronic pain.

**Methods:** We conducted a thematic analysis of eConsult cases submitted to chronic pain specialists between April 1, 2011 and October 31, 2014, using a constant comparison approach.

**Results:** PCPs submitted 128 cases to chronic pain specialists during the study period. The study team coded 48 cases before data saturation was reached. PCPs sought advice for treating patients with chronic pain arising from a range of medical problems, and who frequently struggled with issues of mental health, substance dependence, and social complexity. Specialists responded with advice on pain management and treatment, directed PCPs to published guidelines and community resources, and validated the PCPs' frustration or concerns. Specialists provided instruction on safe opioid prescribing and how to identify and manage potential cases of substance dependence.

**Conclusion:** Providing care to patients with chronic pain is a challenge for PCPs, who often experience frustration at their inability to provide a definitive solution for patients. Specialists offered invaluable feedback not only through guidance and advice, but also with sympathy and encouragement. (J Am Board Fam Med 2017;30:766–774.)

**Keywords:** Access to Health Care, Chronic Pain, Opioids, Opioid Analgesics, Primary Care, Primary Health Care, Qualitative, Qualitative Research

Chronic pain is a serious issue for patients around the world.<sup>1,2</sup> Current research estimates that chronic pain affects 100 million Americans<sup>2</sup> and 1

in 5 Canadians (roughly 7 million individuals).<sup>3</sup> Prompt treatment for chronic pain is vital to mitigating symptoms,<sup>4</sup> while waiting for as little as 3 months for care is associated with emotional distress, lower health outcomes, and reduced quality of life.<sup>1,5,6</sup> Unfortunately, wait times for chronic pain treatment far exceed this benchmark, ranging from 6 months to 5 years.<sup>6,7</sup> Compounding this issue, many primary care providers (PCPs) report a

This article was externally peer reviewed.  
Submitted 24 April 2017; revised 29 June 2017; accepted 29 June 2017.

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Funding for this project was provided by the Ontario Ministry of Health and Long-Term Care, The Ottawa Hospital Academic Medical Organization Inno-

vation Fund, e-Health Ontario, and the Champlain Local Health Integration Network. The funders were not involved in the study design, data collection, data analysis, or manuscript preparation, or in the decision to publish the results.

*Conflict of interest:* none declared.

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reluctance to treat patients with chronic pain, citing a lack of formal training, concerns about opiate abuse, and anxiety over reprisal from regulatory bodies.<sup>8,9</sup> As a result of these issues, many regions face overwhelming challenges in caring for people with chronic pain. Potential solutions to support these patients include shared care clinics,<sup>10,11</sup> improved self-management support,<sup>12</sup> team-based care,<sup>13</sup> and the use of telemedicine<sup>13</sup> and electronic consultation.<sup>14</sup>

The Champlain Building Access to Specialists through eConsultation (BASE™) eConsult service began as a proof of concept in our region of eastern Ontario, Canada, offering access to 5 specialty services: dermatology, endocrinology, cardiology, rheumatology, and neurology.<sup>15</sup> Based on promising early results from our service and other eConsult services worldwide,<sup>16,17</sup> we expanded eConsult into a pilot in 2011, followed by a full service with provincial and regional funding in 2013. To date, the eConsult service has enrolled over 1200 PCPs and completed over 25,000 cases.<sup>18</sup> PCPs have access to 102 different specialty groups, including services pertaining to chronic pain care.

To our knowledge, the Champlain BASE™ eConsult service is the first service of its kind to offer access to chronic pain specialists. As such, we have conducted several in-depth analyses of these cases to assess eConsult's impact on access for patients suffering from chronic pain. Our first study, published in 2016, comprised a cross-sectional analysis of 199 cases submitted between April 15, 2011 and June 30, 2015. Our findings revealed improved access to specialist advice, with median response times of only 1.9 days and face-to-face referrals avoided in 36% of cases.<sup>14</sup> An updated assessment of the chronic pain cases completed since that study reveal consistent results: 602 chronic pain eConsults have been completed to date, with median wait times of 1.9 days (identical to original study) and 33% of cases resulting in an originally considered referral being avoided based on specialist advice (36% of cases in the original study).<sup>14</sup> These results further align with analyses of the service as a whole, which have consistently demonstrated median response times of 2 days and the avoidance of unnecessary referrals in over one third of cases.<sup>18,19</sup>

Given the complexity of treating people with chronic pain, we were interested in further understanding the types of questions asked and the na-

ture of the response from the specialists. Therefore, the purpose of this article is to identify the major themes emerging from exchanges between PCPs and specialists regarding patients with chronic pain. Explorations of the themes will support a better understanding of where PCPs require greater support in managing patients with chronic pain and the extent to which pain specialists can provide this support through a quick and secure electronic application.

## Methods

### Design

We conducted a thematic analysis of eConsult cases submitted to chronic pain specialists, using a constant comparative approach.

### Setting

The eConsult service is available to all PCPs practicing in the Champlain Local Health Integration Network (LHIN), a diverse region of 1.2 million individuals comprising Ottawa and the surrounding rural communities.

### Population

At the time of this study, 873 PCPs (including 735 FPs and 138 nurse practitioners) had joined the eConsult service. Chronic pain questions were directed to 1 of 3 pain specialists from The Ottawa Hospital Pain Clinic, Ottawa, Canada, all whom were anesthesiologists with specialized training in chronic pain management. All questions directed to these pain specialists between April 1, 2011 and October 31, 2014 were eligible for inclusion in the study.

### Data Collection

PCPs use the eConsult service by signing on to a secure, Web-based application and submitting questions to the desired specialty group. An assigner allocates the question to a specialist, who responds within 1 week. In their responses, specialists can provide advice, recommend a referral, or request more information. Cases can contain multiple exchanges and are closed by the PCP, who completes a mandatory closeout survey. A complete log of the exchange is automatically saved by the service, alongside information about the PCP (number of eConsults previously submitted, provider type), specialist (specialty group), and eConsult case (specialists' response time, case outcome).

Data for all cases submitted to chronic pain specialists was collected from the database and uploaded into NVivo 10 to facilitate analysis. The Ottawa Health Science Network Research Ethics Board and Bruyère Continuing Care Research Ethics Board provided approval for this study.

### Data Analysis

An anesthesiology resident (MS) met with a chronic pain specialist (CS) to code an initial 5 cases to ensure accuracy of coding. MS coded a convenience sample of 36 cases selected chronologically to identify emerging themes and establish an initial framework. A research assistant (JJ) reviewed the coded cases independently to verify the emerging framework and identify disconfirming data. MS, JJ, and CS met with the rest of the research team—a primary care physician (CL), endocrinologist (EK), and chronic pain clinical health psychologist (PP)—to present the framework. The team was unable to confirm data saturation had been reached. JJ and CS independently coded an additional 12 cases using the existing framework, proceeding through the list of cases and selecting every third entry. The research team all reviewed the codes separately and confirmed data saturation, at which point the team met to discuss and revise the framework.<sup>20,21</sup> Discussion continued until all members were satisfied that the framework accurately reflected the data.

### Results

Twenty-six PCPs submitted 128 cases to chronic pain specialists during the study period. Data saturation was reached after 48 cases were reviewed. Patient and PCP demographics are presented in Table 1. PCPs were predominantly female (n = 22), family physicians (n = 25), and practiced in urban settings (n = 23).

**Table 1. Patient and Provider Demographics**

Characteristic	%
Patient (n = 48)	
Female	54
Age (years; median [IQR])	50.8 (39.7, 57.8)
Primary care provider (n = 26)	
Female	85
Family physician	96
Urban	89

Specialists reported taking less than 10 minutes to respond in 33% of cases, 10 to 15 minutes in 21% of cases, 15 to 20 minutes in 46% of cases, and more than 20 minutes in 21% of cases. Specialists provided a response to PCPs' questions in an average of 2.5 days.

The thematic analysis revealed 4 major themes in the data: patients' experiences with chronic pain, advice sought by PCPs, response provided by specialists, and opioid prescription and management.

### Patients' Experiences

When discussing patient experiences, providers focused on 3 subthemes: the type of pain patients were experiencing, patients' medical history, and the challenges associated with their care.

Providers described a variety of pain types and locations, with low back pain being the most common. Other etiologies included neuropathic pain, Fibromyalgia, and pain resulting from an injury or illness. PCPs reported that many of their patients had suffered with refractory pain for years: "This patient has had many years of chronic pain. I have been his family doctor for the past 5 years and have not yet found a solution that allows him to be functional and have a tolerable pain level."

PCPs frequently described pain management that included multiple pharmaceuticals of different classes, with many patients using upwards of a dozen different medications. In addition, some patients had received surgery, nerve blocks, or other procedures to alleviate pain, or undergone investigations for root causes (eg, Magnetic Resonance Imaging).

In their questions to specialists, PCPs described a number of challenges their patients faced. The most common of these challenges were mental health issues, with numerous patients suffering from depression, substance abuse, and suicidal ideation. These issues were often seen as a complicating factor in the patient's treatment, given that they influenced what treatments could be used for chronic pain: "I am hesitant to use opioids because patient has a history of alcoholism, uses marijuana for pain currently, and has a history of opioid abuse." In several cases, these issues coincided with issues of social complexity, as in the case of 1 patient with "chronic pain, depression, Generalized Anxiety Disorder, and family problems—terrible mess!" Other challenges described by PCPs included side effects to prescribed pharmaceuticals and a lack of private insurance, which limited patients' options for treatment.

### **Advice Sought by PCPs**

The advice sought by PCPs consisted of 3 sub-themes: recommendations for treatment strategies; suggestions for community pain resources; and an expression of concern, frustration, or anxiety regarding the patient.

PCPs' requests for treatment recommendations varied. In many cases, PCPs asked questions about the applicability of a specific medication. Often they sought reassurance in their chosen method, as well as alternative suggestions that may be more appropriate: "I have read about Topamax as a possibility and wonder if this would be a worthwhile option. . . . Please give your opinion on the use of Topamax for diabetic neuropathy." In other cases, PCPs sought a more general plan of action for cases where they were unsure how to proceed: "Thank you for reviewing this gentleman who has chronic total body pain and dysfunction despite hitting him with everything I can think of." In some cases, PCPs asks specialists about specific nonsurgical medical procedures for alleviating pain (eg, epidural steroid injections). In a couple of cases, PCPs sought advice regarding the prescription of cannabinoids, expressing a reluctance to prescribe: "my first question is about renewing her medical marijuana license. I have no experience in this area and am admittedly uncomfortable doing so, as I would be prescribing any med I do not know enough about or have a good handle on how my patient is actually using it."

In a few cases, PCPs asked specialists for information on pain resources available in their community. These resources included clinics that could provide medical services more promptly, as patients had been on wait lists for treatment: "She has been on waiting list at pain clinic; not sure when or if she will be seen, We need some assistance here; can you recommend a community pain clinic that may offer some help?"

In many cases, PCPs' questions included expressions of concern for the patient's wellbeing and frustration at the lack of success among previous treatments. PCPs occasionally referenced the patient's history, emphasizing their ongoing and unsuccessful attempts to mitigate pain: "[Patient has had] chronic pain since injury at work, now totally disabled, no options for work, feeling useless and dependent, very sad story."

### **Response Provided by Specialists**

Specialists' responses consisted of 3 subthemes: treatment strategies, guidance, and support.

Specialists provided recommendations for a wide array of treatment strategies. The most common recommendations were for pharmaceuticals, which included anticonvulsants, anti-inflammatory drugs, antidepressants, cannabinoids, and opioids. These recommendations were sometimes simple, consisting of drug names and appropriate dosages, and at other times included detailed descriptions of the drug's mechanisms, potential side effects, or precautions for avoiding toxicity or other complications. In some instances, specialists suggested more robust treatments that needed to be administered in a clinic, such as intravenous lidocaine infusions, perineural steroid injections, or possibly a surgical consultation. In addition to pharmaceutical and surgical solutions to pain, specialists highlighted the importance of treating the psychological and emotional aspects of chronic pain. Specialists stressed that in some chronic cases where numerous pharmaceutical strategies have proven unsuccessful, the "main issue is not physical pain but mental anguish." Specialists noted that counseling or self-management strategies can have a significant positive impact: "In cases [of] widespread bodily pain out of proportion to any evident tissue damage, drugs and procedures are of little help. The only thing that offers hope is a psychosocial intervention." Specialists recommended referring patients to pain psychologists and providing information on mindfulness training or community support groups to teach self-management skills:

Unfortunately, it is looking as though chronic pain is her chronic illness and self management has to play a big role as the medical profession only has so many answers. The drugs will not cure the pain and will only take the edge off. Patients need to also take a big role in their care.

In addition, specialists stressed the importance of offering patients a sympathetic ear: "In the absence of a medical solution... [the patient] needs a supportive environment in [which] the health care practitioners involved in her care to listen to her, hear her concerns and offer counseling."

In addition to offering specific treatment strategies, specialists discussed how to apply a broad approach to delivering care to patients with chronic

pain. They suggested probable diagnoses based on PCPs' descriptions, and asked questions where necessary to solicit further information. In several cases, they provided an overview of the relevant scientific literature to guide PCPs in their treatment strategies. In other cases, they directed PCPs to resources in the community that could be of benefit to the patient, such as self-management seminars, substance-dependence treatment programs, and pain clinics. Lastly, specialists in several cases offered practical advice on how to factor drug insurance rules into their decision making, suggesting alternative medications for patients without third party insurance or describing how to navigate the rules of public insurance coverage: "I would need to [apply to the Exceptional Access Program] (2-month wait) to have the medication covered by Ontario Disability Support Program. We would ask you to obtain a methadone exemption for pain... to continue prescribing."

While cases invariably focused on the patient's condition, specialists frequently expressed empathy and support for PCPs as individuals doing a difficult and emotionally taxing job. When PCPs expressed frustration or self doubt regarding a patient's lack of improvement, specialists validated their feelings and assured them that they had handled the case properly, noting that "difficult cases like this also require the practitioner to practice self-compassion." In some cases, specialists noted that even when medical attempts to alleviate pain were only partially successful, simply listening to and caring for patients was itself a valuable form of treatment: "I realize that it can be very frustrating not to have solutions for patients. However, being empathetic and supportive to patients that are suffering is very helpful." They also reinforced the notion that in cases of chronic pain, patients must actively engage in their own care in order for it to be successful: "Many [challenging] patients [with chronic pain] make the treating physician feel inadequate. However, it is the patient's responsibility to acknowledge that he will have to learn to cope with this pain in a better way and retain as much function as possible."

### ***Opioid Prescription and Management***

The majority of cases included a discussion of opioids as a possible method of treatment. Discussion of opioids typically went into greater depth than that of other treatments, and included 4 subthemes:

safe prescribing, deprescribing, opioid rotation, and harm reduction.

The most common subtheme in discussions about opioids was safe prescribing. PCPs often expressed a great deal of concern when prescribing opioids to patients, often seeking clarification about whether the specialist felt it would be safe to do so: "My concern is [the patient]'s past history of alcohol abuse and her being on opioids of any kind. Do you have any suggestions on how to manage this situation?" Likewise, specialists frequently flagged items in patients' history or described behavior as possible signs of substance dependence: "[The patient] is at high risk for drug dependency because of her history of addiction, mood disorders, and traumatic events in her childhood and youth." In some cases, specialists advised against renewing or increasing opioid prescriptions because they felt that the risk of the patient developing substance dependence was too great or the patient would receive negligible benefit from them: "The use of opioid medications in this patient should be limited because there is not an objective cause for the pain... and he has a significant history of childhood trauma and mental health concerns." In other instances, specialists discussed strategies for safe, responsible prescribing, such as arranging urine drug screens, allocating prescriptions in smaller dosages or shorter intervals, and requiring that patients "return all used [fentanyl] patches to the pharmacy where they should be examined for tampering."

In a number of cases, specialists suggested deprescribing as the best course of action for patients. Often this suggestion arose when PCPs described long histories of opioid prescription without noticeable improvements in pain management or function. Specialists noted that in some cases, opioids may not be providing analgesia as a result of drug tolerance. In addition, opioid side effects may not permit the addition of potentially useful coanalgesics:

In some of my patients, I talk to them about the fact that taking the medication may merely be maintaining their blood levels (and avoiding painful withdrawal) and if they detoxed from the opiates that their pain control may be more or less the same off the medication. However, they may "feel" a whole lot better and allow us to titrate some of their other medication... or add in an antidepressant.

In a few instances, specialists recommended deprescribing based on concerns over a patient's substance dependence. In these instances, specialists provided detailed guidance on how the PCP could best handle the situation, given that such confrontations can be emotionally challenging or even dangerous:

The simple answer is that you have to stop prescribing. I think that the prescription opioid medication needs to stop quite quickly because she is harming herself. I would tell her that you are no longer comfortable prescribing the medication for her for many reasons. . . . You can be sympathetic in your approach with her but be firm that you can no longer prescribe opioid medication for her because you feel that she likely has an addiction problem and that her health and safety is at risk if you keep prescribing.

In a few cases, specialists clarified that opioids could benefit the patient in the short term, but long-term use should be avoided: "I would treat pain acutely with opiates prn (as needed) but dose reduce once the acute episode has passed. I do not think that increasing long-acting opiates will prevent or lessen future pain crises as he will only become more tolerant."

In several cases, PCPs sought guidance on rotating patients to a different opioid to improve pain control, reduce side effects, or avoid a drug interaction with other medications: "Which narcotic would you next suggest that would be different enough to unlikely have similar side effects to ones previously tried in this patient?" Specialists discussed the merits of various options, provided precise recommendations for dosages, and highlighted some of the challenges associated with opioid rotation: "patients may find it difficult to switch from 1 opioid molecule to another and they may have some withdrawal symptoms despite the dosing being fairly equipotent."

Lastly, specialists occasionally spoke of opioids as an unsatisfactory alternative, noting that their prescription was less than ideal and could sometimes cause more problems than they solve: "One must resist the temptation to treat with opiates which does give both patient and physician temporary relief but in the end leads to more problems. I think of my job as harm reduction while I try to

give the patient support, resist giving opiates and wait for change."

## Discussion

Our analysis of PCP questions and specialist responses provided via the eConsult service for patients with chronic pain revealed 4 major themes: patients' experiences, advice sought by PCPs, response provided by specialists, and opioid prescription and management. PCPs sought advice for patients with complex cases, and specialists provided a mixture of prescriptive guidance, treatment strategies, and validation of PCP concerns.

A prominent issue that emerged from our study was the degree of burden that chronic pain places on patients and providers. Patients frequently faced psychological difficulties in addition to their chronic pain symptoms, with providers often discussing or encouraging treatment for coexisting mental health concerns. The emotional toll exacted by chronic pain is well reported, with multiple studies noting the association between chronic pain and depression, anxiety, and loss of one's social role.<sup>1,5,6,22</sup> PCPs frequently expressed frustration and concern in their questions to specialists, a finding that is likewise reflected in the literature.<sup>23,24</sup> One study found that nearly three quarters of PCPs considered providing chronic pain care to be a major source of frustration.<sup>23</sup> In response to these concerns, specialists in our study expressed empathy for PCPs, validating their concerns and reinforcing how challenging it can be to care for patients with chronic pain especially when a solution is elusive. Specialists also reaffirmed that PCPs are benefiting patients simply by providing a comforting, supportive presence, a claim supported by recent research.<sup>25</sup>

While the themes of 1) patients' experiences, 2) advice sought by PCPs, and 3) responses provided by specialists pertained to a specific party's experience with the eConsult service (ie, the patient, PCP, and specialist, respectively), discussions regarding opioid prescription and management cut across all 3 categories and thus emerged as a separate theme. Discussion of opioids was notable in that it dealt far more with the socioeconomic or psychological circumstances surrounding their use than was the case with other medications, whose discussion was mostly limited to recommendations for dosage, rotation, or avoidance of contraindica-

tions. This is not surprising, given the potential for patients who are given opioids to develop issues of substance dependence, and the growing issue of opioid analgesic abuse.<sup>26</sup> Opioids' potential for misuse can render opioid prescription a contentious issue among patients and providers.<sup>23,24,27</sup> Some patients with chronic pain describe being treated with distrust by their providers when requesting opioids, citing the perception that they are simply seeking drugs rather than analgesia.<sup>28</sup> This may stem from PCPs' reaction to growing concerns around opioid misuse and dependence arising in Canada and the United States, an issue further exacerbated by many PCPs' relative inexperience with treating pain symptoms or using opioids effectively.<sup>8,29–31</sup> For instance, a study of medical students in the United States found that over 4 years of medical school, students received a median of only 9 hours of training that related specifically to pain treatment.<sup>29</sup> The eConsult service is well positioned to address this issue. In addition to providing PCPs with prompt access to advice on pain management and prescription strategies, the service has also been cited as a useful teaching tool by PCPs, who note that the answers the specialists provided for them will improve their ability to treat similar cases in the future.<sup>32</sup>

A surprising finding was the relative dearth of PCP questions on cannabinoids, which we had anticipated would be discussed with much greater frequency. One possible reason for this is the timing of the cases included in our study, which range from April 2011 to October 2014. Since that time, the Canadian government has expressed plans to introduce legislation supporting the legalization of marijuana for recreational purposes. Given this more lenient environment, we expect that more patients and providers will see cannabinoids as an option for treating pain and anticipate a greater volume of questions regarding their use.

Comparing our findings to those of other services is challenging, as eConsult is a relatively new concept and the body of literature examining its impact, while growing, remains fairly small.<sup>16,17</sup> To our knowledge, Champlain BASE™ is the only service to have published studies examining eConsult's impact on chronic pain cases specifically. However, the literature on eConsult services in general is positive, with many studies citing improved access to specialist advice, better interprovider communication, and high levels of provider satisfaction.<sup>16,17</sup>

These findings correspond with those for the Champlain BASE™ eConsult service, both overall and specifically with regard to chronic pain cases.<sup>14,19,32</sup> Notably, PCPs have expressed high levels of satisfaction with cases submitted to chronic pain specialists. In a closeout survey completed at the end of each case, PCPs ranked the service as having high or very high value for their patients and themselves in 90% and 92% of cases, respectively.<sup>14</sup> Given these findings, it stands to reason that the support specialists provide through the service—be it guidance on a specific treatment, direction to useful resources, or reassurance of the difficulty of many cases pertaining to chronic pain—is well regarded by PCPs and has a positive impact on the care their patients receive.

Our study has some limitations. All cases were for patients in the Champlain LHIN, which limits generalizability to other jurisdictions. The eConsult service allocates chronic pain cases to 1 of 3 specialists based on their availability, all whom work for the region's sole academic pain clinic. Their responses, though in line with clinical guidelines, may not precisely reflect those of all chronic pain specialists. The number of eConsult cases submitted to chronic pain has grown considerably since the study period reported on in this article (602 cases to date vs 128 at the time of study), which could have potentially yielded a richer dataset. Lastly, our initial sample consisted of the first 36 cases that met the study criteria as chosen from a chronological list, thereby allocating greater weight to earlier cases. Changes in PCP questions or specialist responses occurring over time could thus not be observed. However, analysis continued until all reviewers agreed that data saturation had been reached, and subsequent cases were chosen over a broader spectrum to minimize potential inaccuracies.

## Conclusion

The eConsult service provided quick access to high-quality specialist advice for patients with chronic pain. PCPs sought advice for treating patients with chronic pain arising from a range of issues, and who frequently struggled with issues of mental health, substance dependence, and social complexity. Opioid questions predominated, which likely reflects the challenges in their safe prescription and concerns of substance dependence. Specialists responded with advice that incor-

porated strategies for treatment, guidance, and validation of their frustration or concern for managing these complex, emotionally taxing patients. Providing care to patients with chronic pain is a challenge for PCPs, who often experience frustration at their inability to provide a definitive solution for patients. Specialists provided invaluable feedback not only through their guidance and advice, but also by offering sympathy and encouragement.

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The authors wish to thank the primary care providers and specialists who use the Champlain BASE™ eConsult service, and the Winchester District Memorial Hospital for hosting the service and providing technical support.

To see this article online, please go to: <http://jabfm.org/content/30/6/766.full>.

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