Con: I Would Not Perform Another ESI in This Patient

In a perfect world, this patient would receive an ESI, return to work, and stop her opioids. ESIs are relatively safe procedures, containing lower risks than opioid therapy [1,2]. However, the world we live in is not perfect, and the decisions we make need to consider factors such as perceptions from peers and patients, long-term financial implications, and unintended consequences. After weighing the potential risks and benefits in this patient, I would opt not to proceed with another ESI.

The patient described previously has multiple risk factors for failing ESI, including disability, depression, opioid use, absence of radicular symptoms, and recent failure of previous ESI [1]. If a strong candidate has a 50% chance of sustaining modest benefit from an ESI, then the chances of this patient deriving meaningful benefit is only a small fraction of that.

The integrity and viability of our profession in general, and the effectiveness of ESI in particular, is currently under assault from the media, other specialties [3–5], and third-party payers who base reimbursement decisions on cost-effectiveness analyses, which often yield negative conclusions [6,7]. Yet the survival of ESI as a treatment has surprisingly little to do with lack of evidence. In fact, the evidence supporting ESI in well-selected candidates is stronger than most medical treatments, including interventions such as sympathetic blocks whose future is not endangered as much as other procedures performed, which translates into higher payouts at a time in which burgeoning health care costs threaten to undermine our economy [8]. In the future, health care costs allocated to one treatment are likely to come at the expense of resources allocated to different treatments (e.g., chemotherapy) or even resources allotted to other areas, such as education. The negative perceptions are at least partly attributable to our indiscriminate use of injections, which is a function of the growing number of pain practitioners who perform procedures; studies have found a direct correlation between the number of providers performing a given procedure and the number of procedures done [9]. Paradoxically, the surge in ESI has mirrored corresponding increases in the number of spine surgeries [10] and has done little to change the upward trajectory of disability claims.

I acknowledge that there is a small chance that this patient might benefit from a repeat procedure, although the likelihood that she will return to work is statistically remote. In a world in which issue of cost utility was irrelevant, I might opt to try another injection. However, we do not live in a perfect world, and any decision we make must take into account predictable and potential consequences. If our profession proves incapable of exercising self-restraint, then we must be prepared for outside forces to regulate us.

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This case scenario is unfortunately common, whereby a patient with chronic pain and disability receives sequential treatment rather than an integrated comprehensive care. Although the question of whether this patient receives an additional ESI is relevant to her specific question, perhaps the more pressing issue is the overall practice pattern of interventionalism at this juncture. Despite taking opposing viewpoints with regard to the case study presented, both Drs. Trescot and Cohen refreshingly address the imperatives of cost utility and put the patient’s well-being ahead of issues of remuneration. This is encouraging, particularly given the criticism in the recent literature regarding the mercenary practice patterns of some interventionalists in the face of questionable evidence basis [1,2]. Although some would question the ethics of placing financial limitations on pain relief, Dr. Cohen notes that we live in an imperfect world, and physicians must become progressively cognizant of cost-effectiveness. Dr. Trescot cited a UK study to support her assertion that ESIs are cost-effective—a study that occurred within a government-funded health care system. More relevant are the results of a recent systematic review that found the mean cost of an ESI to be $505—considerably costlier than the figures cited by Dr. Trescot. The average total reimbursement payment for an ESI was an estimated $1,282 [3], and thus, the cost effectiveness is questionable. Aside from issues of physical safety and clinical efficacy, the financial safety of an additional ESI merits consideration. Health insurance carriers are notorious for limiting the care that patients with chronic pain receive, seeing them not as suffering beings but merely as financial liabilities [4]. A possible unintended consequence of an additional ESI is that this patient may be denied future effective treatment.

Aside from cost-effectiveness, Drs. Trescot and Cohen express concerns regarding clinical efficacy, and we agree that patient well-being and quality of life are the primary metrics to be considered. Dr. Trescot acknowledges that the evidence basis for long-term pain relief from ESIs is limited. She briefly mentions the contentious guideline “warfare” that occurred between the American Society of Interventional Pain Physicians (ASIPP) and the APS over the past several years, in which representatives of each organization have criticized the other’s methodology in their systematic reviews of the efficacy of interventional techniques [5,6]. Systematic reviews may be valuable tools for determining the efficacy of an intervention across large patient populations. Unfortunately, they generally do not account for the skills and techniques of the interventionalists or the “outlier” patients that we know derive benefit from interventions that have weak evidence bases. This issue is analogous to the question of the long-term efficacy of chronic opioid therapy addressed in a previous Ethics Forum [7]. Although good evidence supporting the long-term benefits of opioids for chronic noncancer pain is lacking, all of us have anecdotally seen patients who have indeed fared well from this type of treatment. The same is certainly true of ESIs. As Dr. Trescot notes, the safety of ESIs has been established, both by her research group [8] and others [9,10]. Accordingly, the risk/benefit ratio, as she notes, supports the provision of an additional ESI and should be seen as ethical treatment in that it would meet the standards of the bioethical principles of beneficence and nonmaleficence.

Despite taking the position that the patient in this case scenario should not receive an additional ESI, Dr. Cohen acknowledges that ESIs have a stronger evidence basis than most medical procedures. Thus, we return to the issues of patient selection and physician technique. Dr. Trescot comments that we do not know whether the patient in question received image-guided injections or not, which is information that is also missing from some of the reviews of ESIs that have been published. Recent reviews of ESI efficacy conducted by ASIPP representatives excluded studies that did not involve image-guided interventions [11–14]; thus, the discrepant findings between their systematic reviews and others may be explained by this divergent methodology. Indeed, Chang and colleagues [15] noted that historically, ESIs have been provided without the benefit of imaging, resulting in erroneous placement in up to 30% of all injections. In a systematic review, the authors [16] noted that studies of “blind” (nonimage-guided) ESIs yielded only limited evidence of efficacy, and their results should not be extrapolated to image-guided approaches. The superiority of image-guided ESIs over blind approaches has been established for over 20 years [17].

Giordano [18] has written, “As steward of knowledge, the physician must use scientific knowledge (episteme), skill and art (techne), balanced by phronesis (practical wisdom) to assess the relative effectiveness, benefit, and burdens of a particular treatment to a unique patient” (p. 7). Clearly, there is no absolute “right” or “wrong” answer to the case dilemma and the positions established by Drs. Trescot and Cohen. As the evidence is strong, it is apparent that all ESIs should be image guided to best ensure safety, efficacy, and value. In this case, we posit that the ethical approach involves respect for the individual patient’s phenomenological needs, which should then be considered within the current state of scientific knowledge as well as the economic realities of pain medicine practice at this time.