gated in a timely fashion, resulting in missed opportunities to correct deficient practices and interrupt transmission. On the basis of results from these and other investigations, the Centers for Disease Control and Prevention (CDC) has made specific recommendations for preventing transmission of bloodborne diseases, such as HBV infection, among residents of long-term care facilities [4].

Evidence from our investigations suggests that acute infection with HBV is often not considered in the differential diagnosis, even when cardinal signs of hepatitis, such as jaundice, are present [4]. Although HBV infection occurs primarily among younger adults in association with high-risk sexual or drug use behaviors, health care providers should maintain a high index of suspicion for HBV and hepatitis C (HCV) infections when evaluating long-term care residents or other older patients whose illness includes unexplained hepatic dysfunction or substantially elevated aspartate or alanine amino transaminase levels [3, 5]. Evidence of acute viral hepatitis in any resident of a nursing home or other long-term care facility should be investigated and reported to public health authorities [4]. Cases involving a diabetic resident should prompt a thorough evaluation of fingerstick blood sampling and other diabetes care procedures.

The CDC does not recommend routine hepatitis B vaccination or bloodborne pathogen screening of long-term care residents with diabetes. Bloodborne pathogen transmission in health care settings is entirely preventable by adherence to standards of care, including appropriate staffing and infection control [4]. Reducing the frequency of fingerstick procedures to the minimum necessary for appropriate glycemic control may also decrease opportunities for bloodborne pathogen transmission while reducing pain and discomfort [4, 6]. As the US population ages during the coming decades, chronic HCV and HIV infections, as well as diabetes, will likely become more prevalent among newly admitted long-term care residents. Because infection control errors that facilitate HBV transmission between diabetics patients also have the potential to spread HCV [7] or HIV, these risks demand increased attention.

Acknowledgments


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References


Efficacy of Echinilin for the Common Cold

Str—As coinvestigator in a clinical study of echinacea [1] discussed in the recent article by Caruso and Gwaltney [2], I would like to point out numerous errors in their characterization of our study as “not well designed.” They claim that our study lacked proper randomization, intention-to-treat analysis, proof of blinding, and validated case definition. Our study was misrepresented in all of those points.

With respect to random assignment, our study states that “subjects were randomly assigned to receive either the Echinacea or placebo” [1, p. 77]. The method we used is the same as that used in the study by Barrett et al. [3], which Caruso and Gwaltney [2] concluded met their criteria for randomized assignment.

With respect to intention-to-treat analysis, again, the authors failed to note that our results, which were based on intention-to-treat, were published alongside the per protocol results. Every figure in our paper contained intention-to-treat analysis as well as the per protocol analysis. The discussion of both results is included.

With respect to blinding, our study states that “blinding was also maintained adequately during the treatment period. On completion of the study, ~50% of the subjects in both groups could not guess correctly whether they had received echinacea or placebo” [1, p. 78]. Our assessment of blinding is almost identical to that made in the study by Taylor et al. [4], which Caruso and Gwaltney [2] considered to have met their criteria for proof of blinding.

With respect to the validated case definition, once again, Caruso and Gwaltney [2] failed to note that the symptom scale used in our study is the same 10-point Likert scale used in Barrett et al. [3]. In our study, the subjects were enrolled at onset of the first symptom, whereas in the study by Barrett et al. [3], study subjects were enrolled after the onset of 2 symptoms. It should be noted that the random-
Echinacea, Vitamin C, the Common Cold, and Blinding

Sir—Caruso and Gwaltney [1] reviewed the effect of echinacea treatment on the common cold, identifying 9 placebo-controlled trials. A quality score was calculated for each trial, and the main focus was put on 2 trials that received maximum scores and reported negative results. However, the use of quality scores in literature reviews has been strongly discouraged. For example, Greenland [2] commented that quality scoring “introduces an unnecessary and somewhat arbitrary subjective element into the analysis via the scoring scheme.” Quality scoring cannot and should be replaced by direct categorical and regression analyses of the impact of each quality item. Such item-specific analyses let the data, rather than the investigator, indicate the importance of each item in determining the estimated effect” (p. 672).

Also, the Cochrane Handbook [3] states that “reviewers should avoid the use of quality scores in literature reviews has been strongly discouraged. For example, Greenland [2] commented that quality scoring “introduces an unnecessary and somewhat arbitrary subjective element into the analysis via the scoring scheme.” Quality scoring cannot and should be replaced by direct categorical and regression analyses of the impact of each quality item. Such item-specific analyses let the data, rather than the investigator, indicate the importance of each item in determining the estimated effect” (p. 672).

Six echinacea trials found positive results, but none of them provided proof that blinding was confirmed, which led Caruso and Gwaltney [1] to propose that the benefit in these 6 trials might be explained equally well by a break in the double blind” [7, p. 1038]. Because of such spectacular findings in this subgroup analysis, the Karlowski trial has often been cited as an example of the placebo effect in action. However, the subgroup analysis excluded 105 episodes of common cold (42% of all episodes of cold), even though the 2 subgroups were presented as if they were complementary [8]. There are numerous additional problems with Karlowski’s placebo effect explanation, and, consequently, it is not a valid interpretation to the study results [8]. Furthermore, a recent meta-analysis of trials comparing placebo and no-treatment groups with respect to diverse medical topics found no or minimal evidence for the placebo effect, which indicates that it is not as large as commonly assumed [9].

A recent Cochrane Review [10] of placebo-controlled trials found that regular vitamin C supplementation reduced the duration of common cold infection in adults by 8% (95% CI, 3%–13%), and in children by 13.5% (95% CI, 5%–21%). Furthermore, although vitamin C showed no effect on the incidence of common cold in the general population (relative risk, 0.98; 95% CI, 0.95–1.00), it reduced