

Via Facsimile and U.S. Mail
Mail Stop 6010

June 9, 2006

Timothy J. Barberich
Chairman and Chief Executive Officer
Sepracor Inc.
84 Waterford Drive
Marlborough, Massachusetts 01752

Re: Sepracor Inc.
Form 10-K for Fiscal Year Ended December 31, 2005
Filed March 16, 2006
File No. 000-19410

Dear Mr. Barberich:

We have reviewed your May 3, 2006 response to our April 19, 2006 comment letter and have the following comment. In our comment, we ask you to provide us with information so we may better understand your disclosure. Please be as detailed as necessary in your explanation. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filings. We look forward to working with you in these respects. We welcome any questions you may have about our comment or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Exhibit 13 – Selected Portions of the 2005 Annual Report to Shareholders

Management's Discussion And Analysis Of Financial Condition And Results Of Operations, page 3

Critical Accounting Policies, page 14

1. We have the following comments about the disclosures you proposed in response to prior comment one:
 - a. In your roll forward of the balance for each estimate, please allocate the amount of the current provision between the amounts related to sales made

in the current period and sales made in the prior periods. Otherwise, please:

- i. state that you are not able to do this and explain why and,
 - ii. to the extent you are able, discuss how accurate the estimate has been in the past and, if it has changed, how it changed and the effect of the change.
- b. In discussing your estimate of product that may be returned, please disclose, preferably by product and in tabular format, the total amount of product (in sales dollars) that could potentially be returned as of the balance sheet date, disaggregated by expiration period.
- c. In discussing the potential effect of changes to your estimates, please disclose your belief that the change being discussed is a reasonably likely change and your basis for that belief. Otherwise, please discuss the change(s) that you do believe to be reasonably likely and express that belief. In this regard, it is not clear how the increase by 0.5% of gross sales could be a reasonably likely change in your estimate for all of the following: wholesale fee for service discounts, Medicaid discounts, managed care discounts, chargeback and GPO discounts and returns. As you recognized provisions in 2005 for these discounts of between 0.9% and 6.7% of 2005 gross sales, the 0.5% instead appears to be a hypothetical change.

Please respond to this comment within 10 business days or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comment and provide the requested information. Detailed letters greatly facilitate our review. Please file your letter on EDGAR under the form type label CORRESP.

You may contact James Peklenk, Staff Accountant, at (202) 551-3661, or Oscar M. Young, Senior Accountant, at (202) 551-3622 if you have questions regarding the comments. In this regard, do not hesitate to contact me, at (202) 551-3679.

Sincerely,

Jim B. Rosenberg
Senior Assistant Chief
Accountant