

Mail Stop 6010

August 14, 2006

Mr. Harry G. Mitchell
Interim Chief Financial Officer
10 Forge Parkway
Franklin, Massachusetts 02038

Re: Sontra Medical Corporation
Form 10-KSB for the Year Ended December 31, 2005
Forms 10-QSB for the Quarters Ended March 31, 2006 and June 30, 2006
File No. 000-23017

Dear Mr. Mitchell:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and will make no further review of your documents. Where indicated, we think you should revise your documents in future filings in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. 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 filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-KSB for the Year Ended December 31, 2005

Consolidated Financial Statements, page 28

Note 2. Summary of Significant Accounting Policies - Revenue Recognition, page 32

1. We note from your disclosures throughout the filing that you entered into arrangements to sell your products through distributors. Please tell us and revise your future filings to explain the nature and significant terms of these arrangements with these distributors, including any post shipment obligations, acceptance provisions and return provisions that may exist and how you account for such obligations. Within your discussion, please tell us if you grant price concessions to your these distributors and if so, explain to us how you account for price concessions. Please expand your policy for revenue recognition in future filings to include the accounting for these arrangements.

Form 10-QSB for the Quarter Ended June 30, 2006

Item 3. Controls and Procedures, page 24

2. We note your disclosure that your “Chief Executive Officer and Chief Financial Officer, concluded that [your] disclosure controls and procedures as of the end of the period covered by this report were effective in ensuring that information required to be disclosed by the [Company] in reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities Exchange Commission’s rules and forms.” Revise your future filings to also clarify, if true, that your officers concluded that your disclosure controls and procedures are also effective to ensure that information required to be disclosed in the reports that you file or submit under the Exchange Act is accumulated and communicated to your management, including your chief executive officer and chief financial officer, to allow timely decisions regarding required disclosure. See Exchange Act Rule 13a-15(e).

As appropriate, please respond to these comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter that keys your responses to our comment and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an

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informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact Tara Harkins, Staff Accountant, at (202) 551-3639 or me at (202) 551-3671 if you have questions regarding these comments.

Sincerely,

Martin F. James
Senior Assistant Chief Accountant