As filed with the Securities and Exchange Commission on April 13, 2006

Registration Statement No. 333-132869

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

AMENDMENT NO. 1 TO
FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

(Exact name of Registrant as specified in its charter)

Minnesota	**41-1649949**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

10 Forge Parkway
Franklin, Massachusetts 02038
(508) 553-8850
(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

SEAN F. MORAN
Chief Financial Officer
Sontra Medical Corporation
10 Forge Parkway
Franklin, Massachusetts 02038
(508) 553-8850
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Approximate date of commencement of proposed sale to public: As soon as possible after the Registration Statement becomes effective.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. ☐

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. ☒

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.☐

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. ☐

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. The selling shareholders named in this prospectus may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and the selling shareholders named in this prospectus are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED , 2006

PROSPECTUS

9,224,653 SHARES OF COMMON STOCK, $.01 PAR VALUE PER SHARE

Sontra Medical Corporation has completed a private placement to selected qualified purchasers of units consisting of shares of our Common Stock and Warrants to purchase shares of our Common Stock (the "Private Placement"). This prospectus relates to resales from time to time of:

- 4,456,354 shares of our Common Stock issued to the purchasers in the Private Placement;
- 4,456,354 shares of our Common Stock issuable upon exercise of the Common Stock Purchase Warrants issued to the purchasers in the Private Placement; and
- 311,945 shares of our Common Stock issuable upon exercise of the Common Stock Purchase Warrants issued to the placement agent, or its designees, in the Private Placement.

All of the shares being offered by this prospectus are being offered by the selling shareholders named in this prospectus. This offering is not being underwritten. We will not receive any proceeds from the sale of the shares of our Common Stock in this offering. Upon any exercise of the warrants by payment of cash, however, we will receive the exercise price of the warrants, which is $0.58 per share. The selling shareholders identified in this prospectus, or their pledgees, donees, transferees or other successors-in-interest, may offer the shares of Common Stock or interests therein from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices.

Our Common Stock is traded on the Nasdaq Capital Market under the symbol "SONT." On April 12, 2006, the closing sale price of our Common Stock on the Nasdaq Capital Market was $0.52 per share. You are urged to obtain current market quotations for the Common Stock.

Investing in our Common Stock involves a high degree of risk. See "Risk Factors" beginning on page 6.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is , 2006.

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No person has been authorized to give any information or to make any representations other than those contained in this prospectus in connection with the offering made hereby, and if given or made, such information or representations must not be relied upon as having been authorized by Sontra Medical Corporation, any selling shareholder or by any other person. Neither the delivery of this prospectus nor any sale made hereunder shall, under any circumstances, create any implication that information herein is correct as of any time subsequent to the date hereof. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any security other than the securities covered by this prospectus, nor does it constitute an offer to or solicitation of any person in any jurisdiction in which such offer or solicitation may not lawfully be made.

PROSPECTUS SUMMARY

This summary highlights important features of this offering and the information included or incorporated by reference in this prospectus. This summary does not contain all of the information that you should consider before investing in our Common Stock. You should read the entire prospectus carefully, especially the risks of investing in our Common Stock discussed under "Risk Factors" and our financial statements and the accompanying notes, before making an investment decision.

Sontra Medical Corporation

Sontra Medical Corporation is the pioneer of SonoPrep®, a non-invasive ultrasonic skin permeation technology for medical and therapeutic applications including transdermal diagnostics and the enhanced delivery of drugs through the skin. Our proprietary ultrasound mediated skin permeation technology is a non-invasive and painless method of enhancing the flow of fluids and molecules across the protective membrane of the stratum corneum, the outer layer of the skin.

Our strategy is to combine our ultrasonic skin permeation technology together with synergistic biosensor and transdermal drug delivery technologies to develop a diversified product pipeline with opportunities for short-term commercialization and long-term strategic partnerships. Our vision is for painless and continuous transdermal diagnosis and drug delivery that will improve patient outcomes and reduce health care costs. We believe these benefits will be realized with improved patient compliance to treatment, continuous diagnosis and data collection, and new routes for continuous drug delivery.

To date, we have tested the feasibility of our SonoPrep technology for various applications, including glucose monitoring, transdermal drug delivery, vaccination and topical lidocaine delivery. We have received 510(k) marketing clearance from the FDA for our SonoPrep device for the transdermal delivery of 4% topical lidocaine and in electrophysiology applications.

Our product development programs based on our SonoPrep technology include:

- Continuous transdermal blood glucose monitoring.
- Enhanced transdermal delivery of topically applied drugs.
- Transdermal vaccination.
- Transdermal drug delivery of large molecules and biopharmaceuticals.
- Skin preparation prior to electrophysiology tests to improve electrical signals.

We expect to develop additional products, which will require substantial expenditures, including for feasibility studies, pre-clinical studies, prototype development and clinical testing. In addition, the establishment of collaborative partnerships and regulatory, manufacturing, sales and marketing activities by collaborative partners will be necessary for successful commercial production of our technologies or their incorporation into third-party products.

Our ultrasonic skin permeation technology was developed by our co-founders Dr. Joseph Kost and Dr. Robert Langer at the Massachusetts Institute of Technology's Chemical and Bioengineering Laboratory. Sontra licensed the MIT technology and Sontra engineers and scientists reduced the technology to practice. We have an exclusive worldwide license from the Massachusetts Institute of Technology (MIT) under certain licensed patents to develop and commercialize ultrasonic skin permeation products. These licensed patents, which include eight issued patents in the United States, three issued foreign patents, two pending U.S. patents and three pending foreign patent applications, comprise a substantial portion of our patent portfolio relating to our technology.

We recently received ISO 13485 certification for our quality management system. In order to receive such certification, a company must implement a quality management system that encompasses all company functions including the design and development of products, the purchasing of materials and

services and the delivery of the products and services, with all aspects of medical device, regulatory and industry requirements being addressed. ISO 13485 status is required before products can be marketed in Canada, the European Union, and several other countries.

Company Information

Sontra Medical Corporation, a Minnesota corporation, was formed through the merger of Sontra Medical, Inc. ("SMI") and ChoiceTel Communications, Inc. ("ChoiceTel") in June 2002 (the "Merger"). Following the Merger, ChoiceTel changed its name to Sontra Medical Corporation and began operating in SMI's line of business. ChoiceTel was incorporated in the Minnesota in 1989. SMI was incorporated in Delaware on March 31, 1998.

Our principal executive offices are located at 10 Forge Parkway, Franklin, Massachusetts 02038, and our telephone number is (508) 553-8850. Our web site is located at http://www.sontra.com. We have not incorporated by reference into this prospectus the information on our website and you should not consider it to be a part of this document. Our website address is included in this document as an inactive textual reference only. Unless the context otherwise requires, the terms "Sontra," "the Company," "we," "us" and "our" refer to Sontra Medical Corporation.

The Offering

Common Stock offered by selling shareholders	9,224,653 shares
Use of proceeds	Sontra will not receive any proceeds from the sale of shares in this offering. Upon any exercise of the warrants by payment of cash, however, we will receive the exercise price of the warrants, which is $0.58 per share.
Nasdaq Capital Market symbol	"SONT"

All of the shares being offered by this prospectus are being offered by the selling shareholders listed herein. The selling shareholders identified in this prospectus, or their pledgees, donees, transferees or other successors-in-interest, may offer the shares or interests therein from time to time through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices.

Private Placement

During the first quarter of fiscal 2006, the Company completed a financing (the "Financing") with selected qualified purchasers that provided the Company with net proceeds of approximately $1.6 million pursuant to the terms of a Common Stock and Warrant Purchase Agreement, dated as of March 7, 2006 (the "Purchase Agreement"). Under the terms of the Purchase Agreement, investors purchased 4,456,354 shares of the Company's Common Stock in a private placement at a per share purchase price of $0.40. The investors also received warrants (the "Warrants") to purchase up to 4,456,354 shares of Common Stock. The Warrants are exercisable beginning six months from the issue date at a per share price of $0.58 and will expire no later than the fifth anniversary of the issue date. In addition, the Company shall have the right to terminate the Warrants, upon thirty days notice, in the event that the closing price of the Company's common stock for twenty consecutive trading days is equal to or greater than $1.16 per share. In the Financing, a trust for the benefit of the children of Michael R. Wigley, Chairman of the Board of Directors of the Company, purchased 375,000 shares of Common Stock and Warrants for the purchase of 375,000 shares of Common Stock, for an aggregate purchase price of $150,000.00. The Company intends to use the net proceeds from the Financing for working capital and general corporate purposes.

The Company agreed to pay to the placement agent for the Financing for its services: (a) a cash fee equal to 7% of the aggregate capital raised by the Company from investors introduced to the Company by the placement agent, excluding the proceeds from any Warrant exercises; (b) warrants to purchase a number of shares of Common Stock of the Company equal to 7% of the total number of shares of Common

Stock issued to investors introduced to the Company by the placement agent, excluding shares of Common Stock to be issued upon Warrant exercises or in connection with the payment of dividends or interest, on the identical terms and conditions (including exercise price) with the Warrants issued to the investors in the Financing; and (c) a $25,000 legal expense allowance.

The offer, sale and issuance to the investors of the Common Stock, the Warrants and the shares of Common Stock issuable upon the exercise of the Warrants have not been and will not be registered under the Securities Act of 1933, as amended, and, unless so registered, may not be offered or sold in the United States, except pursuant to an applicable exemption from the registration requirements of the Securities Act of 1933, as amended, and applicable state securities laws.

The Company is required to register for resale under the Securities Act the shares of Common Stock issued to the investors and the shares issuable upon the exercise of the Warrants. The Company is also required to register under the Securities Act for resale by the placement agent the shares issuable upon the exercise of the Placement Agent Warrants.

RISK FACTORS

If you purchase shares of our Common Stock, you will take on financial risk. In deciding whether to invest, you should carefully consider the following factors, the information contained in this prospectus and the additional information in our other reports on file with the Securities and Exchange Commission and in other documents incorporated by reference in this prospectus. The risks described below are not the only ones that we face. Additional risks not presently known to us or that we currently consider immaterial may also impair our business operations. Any of these risks could have a material and adverse effect on our business, financial condition or operating results. The trading price of our Common Stock could decline due to any of these risks, and you could lose all or part of your investment.

We have a history of operating losses, and we expect our operating losses to continue for the foreseeable future.

We have generated limited revenue and have had operating losses since our inception. Our historical accumulated deficit was approximately $29,120,000 as of December 31, 2005. It is possible that the Company will never generate sufficient revenue to achieve and sustain profitability. Even if the Company reaches profitability, it may not be able to sustain or increase profitability. We expect our operating losses to continue for the foreseeable future as we continue to expend substantial resources to conduct research and development, feasibility and clinical studies, obtain regulatory approvals for specific use applications of our SonoPrep® technology, identify and secure collaborative partnerships, and manage and execute our obligations in strategic collaborations.

If we fail to raise additional capital, we will be unable to continue our development efforts and operations.

Our development efforts to date have consumed and will continue to require substantial amounts of capital in connection with our SonoPrep® technology. Our product development programs require substantial capital outlays in order to reach product commercialization. As we enter into more advanced product development of our SonoPrep device and our continuous transdermal glucose monitoring system, we will need significant funding to pursue our product commercialization plans. Our ability to continue our research, development and testing activities and commercialize our products in development is highly dependent on our ability to obtain additional sources of financing, including by entering into and maintaining collaborative arrangements with third parties who have the resources to fund such activities. Any future equity financing, if available, may result in substantial dilution to existing shareholders, and future debt financing, if available, may include restrictive covenants or may require us to grant a lender a security interest in our assets. To the extent that we attempt to raise additional funds through third party collaborations and/or licensing arrangements, we may be required to relinquish some rights to our technologies or products currently in various stages of development, or grant licenses or other rights on terms that are not favorable to the Company. Any failure by the Company to timely procure additional financing or investment adequate to fund the Company's ongoing operations, including planned product development initiatives, clinical studies and commercialization efforts, will have material adverse consequences on the Company's business operations and as a result, on our consolidated financial condition, results of operations and cash flows.

Our products are based on new technologies and are in early stages of development, and may not be successfully developed or achieve market acceptance.

Most of our products under development have a high risk of failure because they are based on new technologies and are in the early stages of development. To date, we have tested the feasibility of our SonoPrep® technology for various applications, including glucose monitoring, transdermal drug delivery and certain anesthetic applications. The Company has received 510(k) marketing clearance from the FDA for our SonoPrep® device for the transdermal delivery of 4% topical lidocaine and in electrophysiology applications. However, to develop additional products or additional uses, substantial expenditures will be

required, including for feasibility studies, pre-clinical studies, prototype development and clinical testing. Projected costs for such development are difficult to estimate and they may change and increase frequently.

Our success is dependent on further developing new and existing products and obtaining favorable results from pre-clinical studies and clinical trials and satisfying regulatory standards and approvals required for the market introduction of such products, including our continuous transdermal glucose monitoring system. There can be no assurance that the Company will not encounter unforeseen problems in the development of the SonoPrep® technology, or that we will be able to successfully address the problems that do arise. The SonoPrep technology may not prove effective in connection with diagnostics, vaccine delivery, glucose monitoring and/or transdermal drug delivery. There can be no assurance that any of our potential products will be successfully developed, proven safe and efficacious in clinical trials, meet applicable regulatory standards, be capable of being produced in commercial quantities at acceptable costs, or be eligible for third-party reimbursement from governmental or private insurers. Even if we successfully develop new products, there can be no assurance that such products will be successfully marketed or achieve market acceptance, or that expected markets will develop for such products. If any of our development programs are not successfully completed, required regulatory approvals or clearances are not obtained, or potential products for which approvals or clearances are obtained are not commercially successful, our business, financial condition and results of operations would be materially adversely affected.

In addition, because our products are based on new technologies, they are subject to lengthy sales cycles and may take substantial time and effort to achieve market acceptance, especially at hospitals, which typically have a lengthy and rigorous approval process for adopting new technologies. For example, our SonoPrep Topical Anesthetic System, which consists of the SonoPrep device and a topical anesthetic procedure tray for usage with OTC 4% topical lidocaine, has been marketed through independent medical device distributors. However, the required selling effort and lengthy sales cycle for this product have caused us to reevaluate our distribution strategy. We are currently exploring additional sales and marketing channels, including potentially licensing the product to a larger medical products company. There can be no assurance that we will establish successful sales and marketing methods for our products or that any independent distributors will actively promote our products or be successful in generating sales.

Our future success is dependent upon successful development of our continuous glucose monitor for the hospital intensive care unit market.

We recently amended our license agreement with the Diabetes Care Division of Bayer Healthcare LLC (“Bayer”) and reacquired the worldwide co-exclusive rights to develop and market our continuous transdermal glucose monitoring system utilizing the SonoPrep ultrasonic skin permeation technology for the hospital intensive care unit (ICU) market. The Company has completed the first prototypes and expects to begin human clinical studies in early 2006 at leading Boston-area hospitals, with members of our Clinical Advisory Board serving as principal investigators. Although we believe the clinical rationale exists for our continuous transdermal glucose monitoring system for the ICU market, there can be no assurance that such a market will be established, or that we will be able to successfully develop a product that will prove effective for the ICU market or gain market acceptance should such a market develop. The product development process may take several years and will require substantial capital outlays. If the ICU market does not develop as we expect, or if we are unable to successfully develop a product for such market on a timely basis and within cost constraints, then our business and financial results will be materially adversely affected. In addition, under the terms of our license agreement, Bayer has rights to our technology and has retained co-exclusive rights to the hospital ICU market and may compete with the Company in such market. If Bayer determines to compete with the Company in the ICU market, our financial results will be adversely affected.

Our future success is dependent upon successful collaborations with strategic partners.

Our future success is dependent upon our ability to selectively enter into and maintain collaborative arrangements with third parties for technology research and development, clinical testing, product development and sales and marketing. If we are unable to enter into any additional development agreements or collaborative arrangements with strategic partners, we will be required to internally fund all of our product development activities, significantly increasing business risk and capital requirements in the development, clinical testing, manufacturing, marketing and commercialization of new products. The Company could also encounter significant delays in introducing products into markets or find that the development, manufacture or sale of proposed products in such markets is adversely affected by the absence of those collaborative arrangements.

The process of establishing collaborative partners is difficult, time-consuming and involves significant uncertainty. Discussions with potential collaborators may not lead to the establishment of new collaborative relationships on favorable terms, if at all. If successful in establishing a collaborative agreement, such agreement may never result in the successful development of products or the generation of significant revenue. Any such agreements could limit the Company's flexibility in pursuing alternatives for the development or commercialization of its products. Even if we were to enter into additional collaborative arrangements with third parties, there can be no assurance that the financial condition or results of operations of the Company will significantly improve.

The risks involved with collaborating with strategic partners include, but are not limited to, the following:

- such strategic partners are likely to be larger, better capitalized companies and therefore have significant leverage in negotiating terms of such collaborative arrangements;
- such collaborative arrangements could terminate upon the expiration of certain notice periods;
- collaboration partners may insist on and obtain significant interests in our intellectual property rights, for example, Bayer received an exclusive worldwide right and license of Sontra's intellectual property rights to make, have made, use, import and sell a continuous transdermal glucose monitoring system utilizing ultrasonic techniques;
- funding by collaborative partners may be dependent upon the satisfaction of certain goals or "milestones" by certain specified dates, the realization or satisfaction of which may be outside of our control, for example, our receipt of future milestone payments from Bayer is dependent on Bayer's successful product development efforts, which may not occur on a timely basis, if at all;
- collaborative partners may retain a significant degree of discretion regarding the timing of these activities and the amount and quality of financial, personnel and other resources that they devote to these activities;
- disputes may arise between the Company and any future collaborative partner regarding their respective rights and obligations under the collaborative arrangements, which may be costly; and
- any future collaborative partner may not be able to satisfy its obligations under its arrangement with the Company or may intentionally or unintentionally breach its obligations under the arrangement.

Failure to obtain necessary regulatory clearances or approvals will prevent the Company from commercializing our products under development.

The design, manufacturing, labeling, distribution, marketing, sales and usage of our products will be subject to extensive and rigorous government regulation in the United States and certain other countries. The process of obtaining and maintaining required regulatory clearances and approvals in the United States is lengthy, expensive and uncertain. In order for us to market our potential products in the United States, we must obtain clearance by means of a 510(k) pre-market notification, or approval by means of a pre-market approval ("PMA") application, or a new drug application ("NDA"), from the United States Food and Drug Administration ("FDA"). In February 2004, we received 510(k) marketing clearance from the FDA for our SonoPrep® device for use in electrophysiology applications. In August 2004, we received 510(k) marketing clearance from the FDA for the SonoPrep device and procedure tray for use with topical lidocaine. We will need to obtain additional marketing clearances or approvals from the FDA in order to market new products and new uses of existing products. In order to obtain marketing approval for our continuous transdermal

glucose monitoring system, we will be required to file a PMA application that demonstrates the safety and effectiveness of the product. If the SonoPrep device is used for the transdermal delivery of a drug for an indication for which the drug has not already been approved, an NDA would be required to be filed and approved by the FDA for such drug before marketing. The PMA and the NDA processes are more rigorous and more comprehensive than the 510(k) clearance process and can take several years from initial filing and require the submission of extensive supporting data and clinical information.

Even if we receive 510(k) clearance or PMA or NDA approval, there can be no assurance that the FDA will not impose strict labeling or other requirements as a condition of our clearance or approval, any of which could limit our ability to market our products under development. Further, if we wish to modify a product after FDA clearance or approval, including changes in indications or other modifications that could affect safety and efficacy, additional clearances or approvals could be required from the FDA. No assurance can be given that such clearances or approvals will be granted by the FDA on a timely basis, or at all. Further, we may be required to submit extensive pre-clinical and clinical data depending on the nature of the changes. Any request by the FDA for additional data or any requirement by the FDA that we conduct additional clinical studies could significantly delay the commercialization of our products and require us to make substantial additional research, development and other expenditures. Similarly, any labeling or other conditions or restrictions imposed by the FDA on the marketing of our potential products could hinder the Company's ability to effectively market these products.

From time to time, legislation is drafted and introduced in Congress that could significantly change the statutory provisions governing the approval, manufacturing and marketing of drug products and medical devices. In addition, FDA regulations and guidance are often revised or reinterpreted by the FDA in ways that may significantly affect our business and our products. It is impossible to predict whether legislative changes will be enacted or FDA regulations, guidance or interpretations changed, and what the impact of such changes, if any, may be.

We must maintain our regulatory clearances and approvals in order to continue marketing our products.

Regulatory authorities subject a marketed product, its manufacturer and the manufacturing facilities to continual review and periodic inspections. We will be subject to ongoing FDA requirements, including required submissions of safety and other post-market information and reports, registration requirements, Quality Systems regulations, and recordkeeping requirements. The Quality Systems regulations include requirements relating to quality control and quality assurance, as well as the corresponding maintenance of records and documentation. Our distributors, depending on their activities, are also subject to certain requirements under the Federal Food, Drug, and Cosmetic Act and the regulations promulgated thereunder, and state laws and registration requirements covering the distribution of our products. Regulatory agencies may change existing requirements or adopt new requirements or policies that could affect our regulatory responsibilities or the regulatory responsibilities of our distributors. We may not be able to adapt to these changes or new requirements on a timely basis, or at all.

Later discovery of previously unknown problems with our products, manufacturing processes, or our failure to comply with applicable regulatory requirements may result in enforcement actions by the FDA including, but not limited to: warning letters; patient or physician notification; restrictions on our products or manufacturing processes; product recalls or seizures; refusal to approve pending applications or supplements to approved applications that we submit; suspension or withdrawal of marketing approvals or clearances; and civil and criminal injunctions, fines and penalties.

We may need to obtain further regulatory approval in connection with the usage of 4% topical lidocaine with our SonoPrep Topical Anesthetic System.

In August 2004, we received 510(k) marketing clearance from the FDA to market our SonoPrep device and procedure tray for use with over-the-counter (OTC) 4% topical lidocaine for dermal anesthesia prior to the insertion of needles or intravenous catheters. In September 2004, we launched our SonoPrep Topical Anesthetic System, which consists of the SonoPrep device and a topical anesthetic procedure tray for usage with OTC 4% topical lidocaine. However, OTC 4% topical lidocaine has not yet been approved by the FDA for the indications covered by the Company's 510(k) marketing clearance, namely needle sticks or venipuncture. The FDA may require an NDA in order for Sontra to continue to market OTC 4% topical lidocaine for dermal anesthesia prior to the insertion of needles or intravenous catheters.

The Company intends to continue to market the SonoPrep Topical Anesthetic System pursuant to its 510(k) marketing clearance; however if the FDA determines that approval of the NDA is required, the FDA may determine to limit, restrict or delay our ability to market the system, or may rescind our 510(k) marketing clearance. If the FDA determines that an NDA is required, it is likely that our 510(k) marketing clearance would be rescinded, which would have a material adverse effect on our business and results of operations.

We must regain compliance with the listing requirements of Nasdaq or we will be delisted.

Our Common Stock is currently listed for trading on the Nasdaq Capital Market. We must continue to satisfy Nasdaq's continued listing requirements, including the minimum $2.5 million shareholder equity requirement and the $1 minimum closing bid price requirement, or risk delisting which would have an adverse effect on the Company's business.

On November 23, 2005, we received notice from Nasdaq that the Company is not in compliance with the $1 minimum closing bid price requirement for continued listing on the Nasdaq Capital Market, as the bid price of our Common Stock closed below $1 per share for 30 consecutive business days. In accordance with Nasdaq rules, if at any time before May 22, 2006 the bid price of our Common Stock closes at or above $1 per share for a minimum of ten consecutive business days, the Company will be provided written notice that it has regained compliance with the minimum bid price requirement. If compliance cannot be demonstrated by May 22, 2006, we may be granted an additional 180 calendar-day period if we then meet the Nasdaq Capital Market initial listing criteria, except for the bid price requirement. If we are not eligible for this additional compliance period, our Common Stock will be delisted. We intend to monitor the closing bid price of our Common Stock between now and May 22, 2006, and to consider available options if our Common Stock does not trade at a level likely to result in regaining compliance with the Nasdaq minimum bid price requirement.

If the Company's Common Stock is delisted from the Nasdaq Capital Market, it may trade on the over-the-counter market, which may be a less liquid market. In such case, our shareholders' ability to trade, or obtain quotations of the market value of, shares of Sontra's Common Stock would be severely limited because of lower trading volumes and transaction delays. These factors could contribute to lower prices and larger spreads in the bid and ask prices for our Common Stock. In addition, the delisting of the Common Stock from the Nasdaq Capital Market would significantly impair our ability to raise capital in the public markets in the future.

Our potential markets are highly competitive and most participants are larger, better capitalized, and more experienced than Sontra.

The markets in which our products are and may be marketed and sold are intensely competitive, subject to rapid change and significantly affected by new product introductions. Our continuous transdermal glucose monitoring system will compete directly with glucose monitoring products from Roche Diagnostics, LifeScan, Inc., a division of Johnson & Johnson, Bayer Corporation, MediSense, a division of Abbott Laboratories, Medtronic, Inc., Dexcom, SpectRx and TheraSense, Inc. The Company's SonoPrep® device will also compete with numerous companies developing drug delivery products such as Nektar Therapeutics, Alkermes, Inc., Bioject, Inc., PowderJect Pharmaceuticals PLC, Antares Pharma, Inc., Becton Dickinson & Co., Aerogen, Inc., ALZA Corporation, a division of Johnson & Johnson, Norwood

Abbey Limited, Vyteris, Iomed and 3M Company. In the topical lidocaine market, Sontra competes with the existing topical lidocaine products manufactured by Astra and others, and also competes with Norwood Abbey, who has received clearance from the FDA to market a laser poration device and Vyteris, who has received FDA approval to market an iontophoretic device.

Most of these companies are already producing and marketing glucose monitoring or drug delivery products, are either publicly traded or a division of a publicly traded company, and enjoy several competitive advantages over the Company. In addition, several of our competitors have products in various stages of development and commercialization similar to our SonoPrep® device and our continuous transdermal glucose monitoring system. At any time, these companies and others may develop products that compete directly with our proposed product concepts. In addition, Bayer has retained co-exclusive rights to the hospital ICU market and may compete with the Company in such market. Many of our competitors have resources allowing them to spend significantly greater funds for the research, development, marketing and sale of new or existing products, thereby allowing them to respond more quickly to new or emerging technologies and changes in customer requirements. For all of the foregoing reasons, we may not be able to compete successfully against our current and future competitors. If any of our competitors succeeds in developing a commercially viable product and obtaining government approval, our competitive position may be materially adversely affected.

A substantial portion of the intellectual property used by the Company is owned by the Massachusetts Institute of Technology.

We have an exclusive worldwide license from the Massachusetts Institute of Technology (MIT) under certain licensed patents to practice our ultrasound-mediated skin permeation technology. These licensed patents, which include eight issued patents in the United States, three issued foreign patents, two pending U.S. patents and three pending foreign patent applications, comprises a substantial portion of our patent portfolio relating to our technology. While, under the license agreement, we have the right to advise and cooperate with MIT in the prosecution and maintenance of the foregoing patents, we do not control the prosecution of such patents. Instead, the Company relies upon MIT to determine the appropriate strategy for prosecuting these patents. If MIT does not adequately protect our patent rights, our ability to manufacture and market our products, currently in various stages of development, would be adversely affected.

We will need to protect the proprietary information on which our SonoPrep® technology relies.

In addition to the exclusive license from MIT, as of December 31, 2005 we owned four issued patents and six pending patent applications in the United States and two foreign patent and fifteen pending foreign applications. We can provide no assurance that patents will be issued from the patent applications, or, if issued, that they will be issued in a form that will be advantageous to the Company.

There can be no assurance that one or more of the patents owned or licensed by the Company will not be successfully challenged, invalidated or circumvented or that we will otherwise be able to rely on such patents for any reason. If any of our patents or any patents licensed from MIT are successfully challenged or our right or ability to manufacture our products or future products (if successfully developed and commercialized) were to be limited, our ability to manufacture and market these products could be adversely affected, which would have a material adverse effect upon our business, financial condition and results of operations.

In addition to patent protection, we rely on a combination of copyright, trade secret and trademark laws, and nondisclosure, confidentiality agreements and other contractual restrictions to protect our proprietary technology. However, these legal means afford only limited protection and may not adequately protect the rights or competitive advantage of the Company. We may not be able to prevent the unauthorized disclosure or use of our technical knowledge or other trade secrets by our employees.

Nondisclosure and confidentiality agreements with third parties may be breached, and there is no assurance that the Company would have adequate remedies for any such breach.

If we fail to protect our intellectual property rights, our competitors may take advantage of our ideas and compete directly against the Company. There can be no assurance that competitors, many of whom have substantial resources and have made substantial investments in competing technologies, will not seek to apply for and obtain patents that limit our ability to make, use and sell our products either in the United States or in foreign markets. Furthermore, if our intellectual property is not adequately protected, our competitors may be able to use our intellectual property to enhance their products and compete more directly with the Company, which could prevent us from entering our products into the market or result in a decrease in our eventual market share.

We have limited manufacturing experience, which could limit our growth.

To successfully commercialize our SonoPrep skin permeation technology we will have to manufacture or engage others to manufacture the particular device in compliance with regulatory requirements. We have limited manufacturing experience and resources that would enable us to make products in the volumes that would be necessary for us to achieve significant commercial sales, and there can be no assurance that we will be able to establish and maintain reliable, efficient, full scale manufacturing at commercially reasonable costs, in a timely fashion. There are technical challenges to increasing manufacturing capacity, including equipment design, materials procurement, problems with production yields, quality control and assurance and compliance with environmental regulations. Developing and scaling manufacturing facilities will require the investment of substantial additional funds and is subject to risks and uncertainties, including suitability of facility space, design, installation and maintenance of equipment and increased management responsibility. Difficulties we encounter in manufacturing scale-up, or our failure to implement and subsequently maintain our manufacturing facilities in accordance with good manufacturing practice regulations, international quality standards or other regulatory requirements, could result in a delay or termination of production.

We may be subject to litigation or other proceedings relating to our intellectual property rights.

The medical device industry has experienced extensive litigation regarding patents and other intellectual property rights. Third parties could assert infringement or misappropriation claims against us with respect to our products. Any litigation or interference proceedings involving the Company may require us to incur substantial legal and other fees and expenses. Such proceedings would also be time consuming and can be a significant distraction for employees and management, resulting in slower product development and delays in commercialization. In addition, an adverse determination in litigation or interference proceedings could subject the Company to significant liabilities to third parties, require us to obtain licenses from third parties or prevent us from selling our products in certain markets, or at all, which would have a material adverse effect on our reputation, business, financial condition and results of operations.

We operate in an industry with significant product liability risk.

Our business will expose us to potential product liability claims that are inherent in the testing, production, marketing, sale and usage of human diagnostic and ultrasonic transdermal drug delivery products. Claims may be made by patients, healthcare providers or distributors of our products. Although we have product liability insurance that we believe is appropriate, this insurance is subject to deductibles and coverage limitations and may not be adequate to protect us against all product liability claims. If we are unable to maintain insurance at an acceptable cost or on acceptable terms with adequate coverage or otherwise protect against potential product liability claims, we will be exposed to significant liabilities, which may harm our business. A product liability claim, recall or other claim with respect to uninsured liabilities or for amounts in excess of insured liabilities could result in significant costs and significant harm to our business. A product liability claim in excess of our product liability insurance would have to be paid out of our cash reserves, if any, and would harm our reputation in the industry and adversely affect our ability to raise additional capital. In addition, defending a suit, regardless of merit, could be costly, could divert management attention and might result in adverse publicity, which would adversely affect our business and financial condition.

Our stock price has been volatile and may fluctuate in the future.

The trading price of our Common Stock may fluctuate significantly. This price may be influenced by many factors, including:

- our financial condition, performance and prospects;
- the depth and liquidity of the market for our Common Stock;
- our ability to enter into successful collaborative arrangements with strategic partners for research and development, clinical testing, and sales and marketing;
- sales by selling shareholders of shares issued and issuable in connection with our private placements;
- investor perception of us and the industry in which we operate;
- general financial and other market conditions; and
- domestic and international economic conditions.

Public stock markets have experienced, and are currently experiencing, extreme price and trading volume volatility, particularly in the technology and life sciences sectors of the market. This volatility has significantly affected the market prices of securities of many technology companies for reasons frequently unrelated to or disproportionately impacted by the operating performance of these companies. These broad market fluctuations may adversely affect the market price of our Common Stock. In addition, fluctuations in our stock price may have made our stock attractive to momentum, hedge or day-trading investors who often shift funds into and out of stocks rapidly, exacerbating price fluctuations in either direction particularly when viewed on a quarterly basis.

Securities we issue to fund our operations could dilute or otherwise adversely affect our shareholders.

We will likely need to raise additional funds through public or private debt or equity financings to fund our operations. If we raise funds by issuing equity securities, the percentage ownership of current shareholders will be significantly reduced and the new equity securities may have rights senior to those of the shares of our Common Stock. If we raise funds by issuing debt securities, we may be required to agree to covenants that substantially restrict our ability to operate our business. We may not obtain sufficient financing on terms that are favorable to investors or us. We may delay, limit or eliminate some or all of our proposed operations if adequate funds are not available. In addition, upon issuance of the shares of Common Stock issuable upon conversion of the outstanding shares of Series A Preferred Stock and the exercise of outstanding warrants, the percentage ownership of current shareholders will be diluted substantially.

The availability of preferred stock for issuance may adversely affect our shareholders.

Our Articles of Incorporation, as amended, authorize our Board of Directors to fix the rights, preferences and privileges of, and issue up to 10,000,000 shares of, preferred stock with voting, conversion, dividend and other rights and preferences that could adversely affect the voting power or other rights of our shareholders. An aggregate of 7,000,000 shares of Series A Preferred Stock were issued in our private placement in 2003, of which 73,334 shares were issued and outstanding as of December 31, 2005. The issuance of additional preferred stock or rights to purchase preferred stock may have the effect of delaying or preventing a change in control of the Company. In addition, the possible issuance of additional preferred stock could discourage a proxy contest, make more difficult the acquisition of a substantial block of the Company's Common Stock or limit the price that investors might be willing to pay for shares of the Company's Common Stock.

Anti-takeover effects of Minnesota law could discourage, delay or prevent a change in control.

As a publicly traded company, we are prohibited by the Minnesota Business Corporation Act, except under certain specified circumstances, from engaging in any merger, significant sale of stock or assets or business combination with any shareholder or group of shareholders who own at least 10% of our Common Stock.

SPECIAL NOTE REGARDING FORWARD-LOOKING INFORMATION

This prospectus includes and incorporates forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. All statements, other than statements of historical facts, included or incorporated in this prospectus regarding our strategy, future operations, financial position, future revenues, projected costs, prospects, plans and objectives of management are forward-looking statements. The words “anticipates,” “believes,” “estimates,” “expects,” “intends,” “may,” “plans,” “projects,” “will,” “would” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We cannot guarantee that we actually will achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included or incorporated in this prospectus, particularly under the heading “Risk Factors,” that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make. Except as otherwise required by law, we do not assume any obligation to update any forward-looking statements.

USE OF PROCEEDS

We will not receive any proceeds from the sale of shares by the selling shareholders. The selling shareholders will pay any underwriting discounts and commissions and expenses incurred by the selling shareholders for brokerage, accounting, tax or legal services or any other expenses incurred by the selling shareholders in disposing of the shares. We will bear all other costs, fees and expenses incurred in effecting the registration of the shares covered by this prospectus, including, without limitation, all registration and filing fees, Nasdaq listing fees, blue sky registration and filing fees, and fees and expenses of our counsel and our accountants.

A portion of the shares covered by this prospectus are, prior to their resale pursuant to this prospectus, issuable upon exercise of Common Stock Purchase Warrants. Upon any exercise of the warrants by payment of cash, we will receive the exercise price of the warrants, which is $0.58 per share. To the extent we receive cash upon any exercise of the warrants, we expect to use that cash for general corporate purposes.

SELLING SHAREHOLDERS

The shares of Common Stock being sold by the selling shareholders consist of:

- 4,456,354 shares of our Common Stock issued to the purchasers in the Private Placement;
- 4,456,354 shares of our Common Stock issuable upon exercise of the Common Stock Purchase Warrants issued to the purchasers in the Private Placement; and
- 311,945 shares of our Common Stock issuable upon exercise of the Common Stock Purchase Warrants issued to the placement agent, or its designees, in the Private Placement.

In accordance with the registration rights granted to the selling shareholders, Sontra has filed with the Securities and Exchange Commission a registration statement on Form S-3, of which this prospectus forms a part, with respect to the resale or other disposal of the shares of Common Stock offered by this prospectus or interests therein from time to time on the Nasdaq Capital Market, in privately negotiated transactions or otherwise. Sontra has also agreed to prepare and file amendments and supplements to the registration statement to the extent necessary to keep the registration statement effective until the shares are no longer required to be registered for the resale thereof by the selling shareholders.

The actual number of shares of Common Stock covered by this prospectus, and included in the registration statement of which this prospectus is a part, includes additional shares of Common Stock that may be issued as a result of stock splits, stock dividends, reclassifications, recapitalizations, combinations or similar events.

Based on information provided to us by the selling shareholders, the following table sets forth ownership and registration information regarding the shares held by the selling shareholders as of March 20, 2006, including: (1) the name of each selling shareholder, (2) the number of shares of our Common Stock beneficially owned by each selling shareholder, including the number of shares purchasable upon the exercise of the Common Stock Purchase Warrants held by the selling shareholder, (3) the maximum number of shares of Common Stock which the selling shareholders can sell pursuant to this prospectus, and (4) the number and percentage of shares of Common Stock that the selling shareholders would own if they sold all their shares registered by this prospectus. Each selling shareholder will receive all of the net proceeds from the sale of its shares of Common Stock offered by this prospectus. Unless otherwise indicated below, to our knowledge, all selling shareholders named in the table have sole voting and investment power with respect to their shares of Common Stock, except to the extent authority is shared by spouses under applicable law. The inclusion of any shares in this table does not constitute an admission of beneficial ownership for the selling shareholder named below.

			Shares of Common Stock Beneficially Owned After Offering(1)	
Name of Selling Shareholder	**Number of Shares of Common Stock Beneficially Owned Prior to Offering**	**Number of Shares of Common Stock Being Offered**	**Number**	**Percentage**
Southridge Partners LP	3,187,500	3,187,500	0	—
Southshore Capital Fund LTD.	562,500	562,500	0	—
Whalehaven Capital Fund Limited	1,399,000(2)	1,375,000	24,000(2)	*
Nite Capital LP	1,001,250	1,001,250	0	—
Barbara A. Wigley Irrevocable Trust of 1993	752,000	750,000	2,000	*
SDS Capital Group SPC, Ltd.	905,740(3)	655,740	250,000(3)	*
Kenneth A. Steel, Jr.	1,060,324(4)	500,000	560,324(4)	2.0%
Alex Tringas	615,000(5)	500,000	115,000(5)	*
Stephen P. Boger DDS	285,919(6)	125,000	160,919(6)	*
Allan R. Lyons	220,000(7)	125,000	95,000(7)	*
Milton Koffman	125,000	125,000	0	—
Peter L. Scherer	26,430(8)	5,718	20,712(8)	*
Dawson James Securities, Inc.	102,847	102,847	0	—
Robert D. Keyser, Jr.	235,092(9)	32,000	203,092(9)	*
Albert Poliak	239,500(10)	32,000	207,500(10)	*
Frank Salvatore	32,000	32,000	0	—
Douglas Kaiser	32,000	32,000	0	—

Thomas Hands	5,000	5,000	0	—
William Fox	5,000	5,000	0	—
John Keyser	9,624	9,624	0	—
Scott Schalk	61,474	61,474	0	—

* Less than 1%

(1) We do not know when or in what amounts a selling shareholder may dispose of the shares or interests therein. The selling shareholders may choose not to dispose of any or all of the shares offered by this prospectus. Because the selling shareholders may offer all or some of the shares or interests therein pursuant to this offering, and because, to our knowledge, there are currently no agreements, arrangements or understandings with respect to the sale of any of the shares, we cannot estimate the number of the shares that will be held by the selling shareholders after completion of the offering. However, for purposes of this table, we have assumed that, after completion of the offering, none of the shares covered by this prospectus will be held by the selling shareholders.

(2) Includes 24,000 shares that may be acquired within 60 days upon the exercise of warrants issued in 2004.
(3) Includes 250,000 shares that may be acquired within 60 days upon the exercise of warrants issued in 2003.
(4) Includes (i) 250,000 shares that may be acquired within 60 days upon the exercise of warrants issued in 2003, and (ii) 150,000 shares that may be acquired within 60 days upon the exercise of warrants issued in 2003 held by K.A. Steel Chemicals Inc.
(5) Includes 115,000 shares that may be acquired within 60 days upon the exercise of warrants issued in 2003.
(6) Includes 43,333 shares that may be acquired within 60 days upon the exercise of warrants issued in 2003.
(7) Includes 95,000 shares that may be acquired within 60 days upon the exercise of warrants issued in 2003.
(8) Includes (i) 10,000 shares that may be acquired within 60 days upon the exercise of warrants issued in 2003, and (ii) 10,000 shares that may be acquired within 60 days upon the conversion of shares of Series A Preferred Stock.
(9) Includes 203,092 shares that may be acquired within 60 days upon the exercise of warrants issued in 2003.
(10) Includes 207,500 shares that may be acquired within 60 days upon the exercise of warrants issued in 2003.

The Barbara A. Wigley Irrevocable Trust 1993 is a trust for the benefit of children of Michael R. Wigley, the Chairman of the Board of Directors of the Company. For a description of the Private Placement, see “Prospectus Summary—Private Placement.”

Dawson James Securities, Inc. served as placement agent in the Private Placement. Each of Robert D. Keyser, Jr., Albert Poliak, Frank Salvatore, Douglas Kaiser, Thomas Hands, William Fox, John Keyser and Scott Schalk is an employee and registered representative of the placement agent. For a description of the Private Placement and the compensation paid to the placement agent in the Private Placement, see “Prospectus Summary—Private Placement.”

The following selling shareholders also participated as investors in the Company’s private placement of units consisting of shares of Series A Convertible Preferred Stock and Warrants to purchase shares of Common Stock completed in 2003: SDS Merchant Fund, LP, an affliate of SDS Capital Group SPC, Ltd., Kenneth A. Steel, Jr., Alex Tringas, Stephen P. Boger DDS, Allan R. Lyons and Peter L. Scherer. In addition, Dawson James Securities, Inc. acted as placement agent in such private placement and received (i) warrants to purchase an aggregate of 800,000 shares of Common Stock at an exercise price per share of $1.20, (ii) fees and reimbursed expenses of approximately $552,050, and (iii) a success fee in the form of a one-year consulting agreement with the Company paying an aggregate of $60,000.

Whalehaven Capital Fund Limited also participated as an investor in the Company's private placement of units consisting of shares of Common Stock and Warrants to purchase shares of Common Stock completed in 2004.

Other than as set forth in the immediately preceding paragraph and in the table above, none of the selling shareholders has held any position or office with, and has not otherwise had a material relationship with, the Company or any of our subsidiaries within the past three years.

PLAN OF DISTRIBUTION

We are registering the shares of Common Stock on behalf of the selling shareholders. Sales of shares may be made by the selling shareholders, including their respective donees, transferees, pledgees or other successors-in-interest directly to purchasers or to or through underwriters, broker-dealers or through agents. Sales may be made from time to time on the Nasdaq Capital Market, any other exchange upon which our shares may trade in the future, in the over-the-counter market or otherwise, at market prices prevailing at the time of sale, at prices related to market prices, or at negotiated or fixed prices. The shares may be sold by one or more of, or a combination of, the following:

- a block trade in which the broker-dealer so engaged will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction (including crosses in which the same broker acts as agent for both sides of the transaction);
- purchases by a broker-dealer as principal and resale by such broker-dealer, including resales for its account, pursuant to this prospectus;
- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- through options, swaps or derivatives;
- in privately negotiated transactions;
- in making short sales or in transactions to cover short sales;
- put or call option transactions relating to the shares.
- in a combination of any such methods of sale; and
- in any other method permitted pursuant to applicable law.

The selling shareholders may effect these transactions by selling shares directly to purchasers or to or through broker-dealers, which may act as agents or principals. These broker-dealers may receive compensation in the form of discounts, concessions or commissions from the selling shareholders and/or the purchasers of shares for whom such broker-dealers may act as agents or to whom they sell as principals, or both (which compensation as to a particular broker-dealer might be in excess of customary commissions). The selling shareholders have advised us that they have not entered into any agreements, understandings or arrangements with any underwriters or broker-dealers regarding the sale of their securities. We have been advised that under the rules and regulations of the NASD, any such broker-dealers may not receive discounts, concessions or commissions in excess of 8% in connection with the sale of any securities being registered hereunder.

The selling shareholders may enter into hedging transactions with broker-dealers or other financial institutions. In connection with those transactions, the broker-dealers or other financial institutions may engage in short positions or other derivative transactions relating to the shares of our Common Stock or of securities convertible into or exchangeable for the shares of our Common Stock in the course of hedging positions they assume with the selling shareholders and may deliver such securities to close out their short positions or otherwise settle short sales or other transactions. The selling shareholders may also loan or pledge shares to broker-dealers or other third parties. In connection with those transactions, the broker

dealers or other third parties may sell such loaned or pledged shares. The selling shareholders may also enter into options or other transactions with broker-dealers or other financial institutions which require the delivery of shares offered by this prospectus to those broker-dealers or other financial institutions. The broker-dealer or other financial institution may then resell the shares pursuant to this prospectus (as amended or supplemented, if required by applicable law, to reflect those transactions).

The selling shareholders may be, and any broker-dealers that act in connection with the sale of shares are, deemed to be "underwriters" within the meaning of Section 2(a)(11) of the Securities Act of 1933, and any commissions received by broker-dealers or any profit on the resale of the shares sold by them while acting as principals may be deemed to be underwriting discounts or commissions under the Securities Act. The selling shareholders may agree to indemnify any agent, dealer or broker-dealer that participates in transactions involving sales of the shares against liabilities, including liabilities arising under the Securities Act. We have agreed to indemnify the selling shareholders and the selling shareholders have agreed to indemnify us against certain liabilities in connection with the offering of the shares, including liabilities arising under the Securities Act.

The selling shareholders will be subject to the prospectus delivery requirements of the Securities Act. We have informed the selling shareholders that the anti-manipulative provisions of Regulation M promulgated under the Securities Exchange Act of 1934 may apply to their sales in the market.

The selling shareholders also may resell all or a portion of their shares in open market transactions in reliance upon Rule 144 under the Securities Act, provided they meet the criteria and conform to the requirements of Rule 144.

We are paying all expenses and fees in connection with the registration of the shares. The selling shareholders will bear all brokerage or underwriting discounts or commissions paid to broker-dealers in connection with the sale of their shares.

Wells Fargo Bank Minnesota, N.A., located at P.O. Box 64854, St. Paul, MN 55164-0854, is the transfer agent and registrar for our Common Stock.

INTEREST OF NAMED EXPERTS AND COUNSEL

The consolidated balance sheets of Sontra Medical Corporation and Subsidiary as of December 31, 2005 and 2004, and the related consolidated statements of loss, changes in stockholders' equity and cash flows for the years then ended have been included in this prospectus and registration statement in reliance upon the report of Wolf & Company, P.C., independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

No expert or counsel named in this prospectus, as having prepared or certified any part of this prospectus or having given an opinion upon the validity of the securities being registered or upon other legal matters in connection with the registration or offering of the common stock, was hired on a contingent basis, will receive a direct or indirect interest in Sontra or any of its subsidiaries or was a promoter, underwriter, voting trustee, director, officer, or employee of Sontra.

The validity of the shares offered by this prospectus has been passed upon by Kevin P. Lanouette, Esq.

INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 302A.521 of the Minnesota Business Corporation Act provides that unless prohibited or limited by a corporation's articles of incorporation or bylaws, a corporation shall indemnify any person made or threatened to be made a party to a proceeding by reason of the former or present official capacity of such person against judgments, penalties, fines, including, without limitation, excise taxes assessed against such person with respect to an employee benefit plan, settlements and reasonable expenses, including attorneys' fees and disbursements, incurred by such person in connection with the proceeding, if,

with respect to the acts or omissions of such person complained of in the proceeding, such person: (1) has not been indemnified therefor by another organization or employee benefit plan; (2) acted in good faith; (3) received no improper personal benefit and Section 302A.255 (with respect to director conflicts of interest), if applicable, has been satisfied; (4) in the case of a criminal proceeding, had no reasonable cause to believe the conduct was unlawful; and (5) reasonably believed that the conduct was in the best interests of the corporation in the case of acts or omissions in such person's official capacity for the corporation, or reasonably believed that the conduct was not opposed to the best interests of the corporation in the case of acts or omissions in such person's official capacity for other affiliated organizations. Section 302A.521 also permits a corporation to purchase and maintain insurance on behalf of its officers, directors, employees and agents against any liability which may be asserted against, or incurred by, such persons in their capacities as officers, directors, employees and agents of the corporation, whether or not the corporation would have been required to indemnify the person against the liability under the provisions of such section.

Article 7 of our Second Amended and Restated Articles of Incorporation eliminates the personal liability of directors to the Company or its stockholders for monetary damages for breaches of their fiduciary duty to the fullest extent permitted by the Minnesota Business Corporation Act.

Article 7 of our Amended and Restated Bylaws provides that directors and officers and certain other persons shall have the rights to indemnification provided by Section 302A.521 of the Minnesota Business Corporation Act. Article 7 also provides that the Company shall have the power to purchase and maintain insurance on behalf of a person in that person's official capacity against any liability asserted against and incurred by the person in or arising from that capacity.

We maintain an insurance policy on behalf of the Company and our directors and officers, covering certain liabilities which may arise as a result of the actions of the directors and officers, including liabilities that may arise under the Securities Act of 1933, as amended.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Company pursuant to the foregoing provisions, or otherwise, the Company has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any materials we file with the SEC at the SEC's Public Reference Room located at 100 F Street, N.E., Washington, D.C. 20549. Copies of this material can also be obtained from the Public Reference Section of the SEC, 100 F Street, N.E., Washington DC 20549, at prescribed rates. You may obtain information on the operation of the public reference rooms by calling the SEC at 1-800-SEC-0330. We file information electronically with the SEC. The SEC maintains an Internet site that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. The address of the SEC's Internet site is *http://www.sec.gov*.

This prospectus is part of a registration statement that we filed with the SEC. The registration statement contains more information than this prospectus regarding us and our Common Stock, including certain exhibits and schedules. You can obtain a copy of the registration statement from the SEC at the address listed above or from the SEC's Internet site.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC requires us to "incorporate by reference" into this prospectus certain information we file with them, which means that we can disclose important information to you by referring you to those documents. The information we incorporate herein by reference is considered to be part of this prospectus and information that we file later with the Securities and Exchange Commission automatically will update and supersede such information. We incorporate herein by reference the documents listed below and any future filings we make with the Securities and Exchange Commission under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, prior to the termination of the offering of the securities covered by this prospectus, as amended:

(1) Our Annual Report on Form 10-KSB for the fiscal year ended December 31, 2005;

(2) Our definitive proxy statement on Schedule 14A filed with the SEC on April 6, 2006;

(3) Our Current Reports on Form 8-K filed with the SEC on March 8, 2006, March 16, 2006 and March 20, 2006;

(4) The description of our Common Stock contained in our Registration Statement on Form 8-A filed with the SEC, including any amendments or reports filed for the purpose of updating that description; and

(5) All of our filings pursuant to the Exchange Act after the date of filing the initial registration statement and prior to effectiveness of the registration statement.

You may request, orally or in writing, a copy of these filings (including exhibits to such filings that we have specifically incorporated by reference in such filings), at no cost, by contacting our executive offices at the following address:

Sontra Medical Corporation
10 Forge Parkway
Franklin, Massachusetts 02038
Attention: Chief Financial Officer
(508) 553-8850

You should rely only on the information contained in this prospectus, including information incorporated by reference as described above, or any prospectus supplement or that we have specifically referred you to. We have not authorized anyone else to provide you with different information. You should not assume that the information in this prospectus or any prospectus supplement is accurate as of any date other than the date on the front of those documents or that any document incorporated by reference is accurate as of any date other than its filing date. You should not consider this prospectus to be an offer or solicitation relating to the securities in any jurisdiction in which such an offer or solicitation relating to the securities is not authorized. Furthermore, you should not consider this prospectus to be an offer or solicitation relating to the securities if the person making the offer or solicitation is not qualified to do so, or if it is unlawful for you to receive such an offer or solicitation.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the various expenses to be incurred in connection with the sale and distribution of the securities being registered hereby, all of which will be borne by Sontra Medical Corporation (except any underwriting discounts and commissions and expenses incurred by the selling shareholders for brokerage, accounting, tax or legal services or any other expenses incurred by the selling shareholders in disposing of the shares). All amounts shown are estimates except the Securities and Exchange Commission registration fee.

Filing Fee—Securities and Exchange Commission	$	597.16
Legal fees and expenses	$	5,000.00
Accounting fees and expenses	$	3,000.00
Miscellaneous expenses	$	1,402.84
Total Expenses	$	10,000.00

Item 15. Indemnification of Directors and Officers.

Section 302A.521 of the Minnesota Business Corporation Act provides that unless prohibited or limited by a corporation's articles of incorporation or bylaws, a corporation shall indemnify any person made or threatened to be made a party to a proceeding by reason of the former or present official capacity of such person against judgments, penalties, fines, including, without limitation, excise taxes assessed against such person with respect to an employee benefit plan, settlements and reasonable expenses, including attorneys' fees and disbursements, incurred by such person in connection with the proceeding, if, with respect to the acts or omissions of such person complained of in the proceeding, such person: (1) has not been indemnified therefor by another organization or employee benefit plan; (2) acted in good faith; (3) received no improper personal benefit and Section 302A.255 (with respect to director conflicts of interest), if applicable, has been satisfied; (4) in the case of a criminal proceeding, had no reasonable cause to believe the conduct was unlawful; and (5) reasonably believed that the conduct was in the best interests of the corporation in the case of acts or omissions in such person's official capacity for the corporation, or reasonably believed that the conduct was not opposed to the best interests of the corporation in the case of acts or omissions in such person's official capacity for other affiliated organizations. Section 302A.521 also permits a corporation to purchase and maintain insurance on behalf of its officers, directors, employees and agents against any liability which may be asserted against, or incurred by, such persons in their capacities as officers, directors, employees and agents of the corporation, whether or not the corporation would have been required to indemnify the person against the liability under the provisions of such section.

Article 7 of our Second Amended and Restated Articles of Incorporation eliminates the personal liability of directors to the Company or its shareholders for monetary damages for breaches of their fiduciary duty to the fullest extent permitted by the Minnesota Business Corporation Act.

Article 7 of our Amended and Restated Bylaws provides that directors and officers and certain other persons shall have the rights to indemnification provided by Section 302A.521 of the Minnesota Business Corporation Act. Article 7 also provides that the Company shall have the power to purchase and maintain insurance on behalf of a person in that person's official capacity against any liability asserted against and incurred by the person in or arising from that capacity.

We maintain an insurance policy on behalf of the Company and our directors and officers, covering certain liabilities which may arise as a result of the actions of the directors and officers, including liabilities that may arise under the Securities Act of 1933, as amended.

Item 16. Exhibits.

Exhibit Number	Description
4.1	Specimen Certificate of Common Stock, $.01 par value per share, of the Registrant is incorporated herein by reference to Exhibit 4.02 to the Registrant's Annual Report on Form 10-KSB for the fiscal year ended December 31, 2002 (File No. 000-23017).
5*	Opinion of Kevin P. Lanouette, Esq.
23.1*	Consent of Kevin P. Lanouette, Esq. (included in Exhibit 5).
23.2	Consent of Wolf & Company, P.C.
24*	Power of Attorney
99.1	Common Stock and Warrant Purchase Agreement, dated as of March 7, 2006, by and among the Company and the investors listed on Schedule 1 thereto is incorporated herein by reference to Exhibit 99.1 to the Registrant's Current Report on Form 8-K dated March 7, 2006 (File No. 000-23017).
99.2	Form of Common Stock Purchase Warrant is incorporated herein by reference to Exhibit 99.2 to the Registrant's Current Report on Form 8-K dated March 7, 2006 (File No. 000-23017).

* Previously filed.

Item 17. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement (the "Registration Statement"):

(i) To include any prospectus required by Section l0(a)(3) of the Securities Act of 1933, as amended (the "Securities Act");

(ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of a prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement.

Provided, *however*, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Securities and Exchange Commission by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new Registration Statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act to any purchaser, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the Registration Statement as of the date it is first used after effectiveness. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the Registration Statement or made in a document incorporated or deemed incorporated by reference into the Registration Statement or prospectus that is part of the Registration Statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the Registration Statement or prospectus that was part of the Registration Statement or made in any such document immediately prior to such date of first use.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's Annual Report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's Annual Report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new Registration Statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act, and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Amendment No. 1 to Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the Town of Franklin, Commonwealth of Massachusetts on April 13, 2006.

SONTRA MEDICAL CORPORATION

By: /s/ Thomas W. Davison
Thomas W. Davison
President and Chief Executive Officer

Pursuant to the requirements of the Securities Act, this Amendment No. 1 to Registration Statement has been signed by the following persons in the capacities indicated on April 13, 2006.

Signature	Title
* Michael R. Wigley	Chairman of the Board of Directors
/s/ Thomas W. Davison Thomas W. Davison	President, Chief Executive Officer and Director (Principal Executive Officer)
/s/ Sean F. Moran Sean F. Moran	Chief Financial Officer (Principal Financial and Accounting Officer)
* Joseph S. Amaral	Director
_____ Gary S. Kohler	Director
* Robert S. Langer	Director
* Gerard E. Puorro	Director
* Brian F. Sullivan	Director

* By: /s/ Thomas W. Davison
Thomas W. Davison
Attorney-in-Fact

EXHIBIT INDEX

Exhibit Number	Description
4.1	Specimen Certificate of Common Stock, $.01 par value per share, of the Registrant is incorporated herein by reference to Exhibit 4.02 to the Registrant's Annual Report on Form 10-KSB for the fiscal year ended December 31, 2002 (File No. 000-23017).
5*	Opinion of Kevin P. Lanouette, Esq.
23.1*	Consent of Kevin P. Lanouette, Esq. (included in Exhibit 5).
23.2	Consent of Wolf & Company, P.C.
24 *	Power of Attorney
99.1	Common Stock and Warrant Purchase Agreement, dated as of March 7, 2006, by and among the Company and the investors listed on Schedule 1 thereto is incorporated herein by reference to Exhibit 99.1 to the Registrant's Current Report on Form 8-K dated March 7, 2006 (File No. 000-23017).
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