SECURITIES AND EXCHANGE COMMISSION

FORM S-3

Registration statement for specified transactions by certain issuers

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OXBORO MEDICAL INC

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Mailing Address 13828 LINCOLN STREET NE HAM LAKE MN 55304 Business Address 13828 LINCOLN ST N E HAM LAKE MN 55304 6127559516

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM S-3

REGISTRATION STATEMENT UNDER
THE SECURITIES ACT OF 1933

OXBORO MEDICAL, INC.

(Exact name of registrant as specified in its charter)

Minnesota

(State or other jurisdiction of incorporation or organization)

41-1391803

(I.R.S. Employer Identification No.)

13828 Lincoln Street NE Ham Lake, Minnesota 55304 (763) 755-9516

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Matthew E. Bellin, President
Oxboro Medical, Inc.
13828 Lincoln Street NE
Ham Lake, Minnesota 55304
(763) 755-9516

(Name, address, including zip code, and telephone number, including area code, of agent for service)

COPIES TO:

Girard P. Miller, Esq.

Lindquist & Vennum P.L.L.P. 4200 IDS Center 80 South Eighth Street Minneapolis, Minnesota 55402 (612) 371-3211

Approximate date of commencement of proposed sale to the public:

As soon as practicable after this 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: /x/

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of 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 delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box: //

CALCULATION OF REGISTRATION FEE(1)

Title of Each Class of Securities to be Registered	Amount to be Registered	Proposed Maximum Offering Price Per Warrant or Share(1)	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee(1)
Warrants to purchase one share of common stock	417,794 Warrants	N/A	N/A	N/A(2)
Common stock, \$.01 par value, issuable upon exercise of warrants(3)	417,794 Shares	\$4.00	\$1,671,176	\$441.19

(1) Estimated in accordance with Rule 457(o) solely for the purpose of determining the amount of the registration fee.

- Pursuant to Rule 457(g)(3), no separate registration fee is required with respect to the warrants.
- (3)

 The warrants of common stock listed in the above table are being registered for issuance and sale upon exercise of the warrants.

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 that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

Subject to completion, dated August 11, 2000

PROSPECTUS

Oxboro Medical, Inc. 13828 Lincoln Street NE Ham Lake, Minnesota 55304 (763) 755-9516

Warrants to Purchase 417,794 shares of Common Stock

As an incentive to the exercise, on or before September 30, 2000, of the common stock purchase warrants we issued in connection with our September 1, 1999 rights offering, the "rights warrants," Oxboro Medical, Inc. is offering to each eligible holder of a rights warrant, one new common stock purchase warrant, an "incentive warrant." We will issue an incentive warrant enabling the holder of the incentive warrant to acquire that number of shares of common stock equal to the number of shares of common stock acquired by the holder upon proper exercise of the holder's rights warrant on or before September 30, 2000.

The incentive warrants expire on September 29, 2003.

A rights warrant holder will pay no consideration for the issuance of the incentive warrant. The per share exercise price of the incentive warrant is subject to adjustment.

In connection with our offering of the incentive warrants, we are registering 417,794 shares of our common stock. These are the shares of common stock that will be issued to the incentive warrant holders upon exercise of the incentive warrants.

Our common stock is traded on The Nasdaq SmallCap Market under the symbol "OMED." The rights warrants are not, and the incentive warrants will not be, listed on The Nasdaq SmallCap Market.

This incentive warrant offering will terminate on 12:00 midnight, Central Time, September 30, 2000.

This investment is speculative and involves a high degree of risk. Please see "Risk Factors" beginning on page .

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.

This prospectus is dated August , 2000

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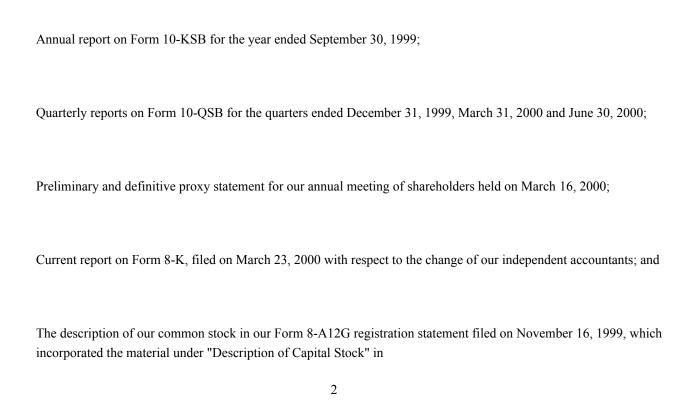
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WHERE YOU CAN FIND MORE INFORMATION

We filed a registration statement on Form S-3 with the Securities and Exchange Commission for this offering. This prospectus does not contain all of the information in the registration statement. In addition, we file annual, quarterly and special reports, proxy statements and other information with the SEC. The registration statement and our other SEC filings are available to the public over the Internet at the SEC's web site at http://www.sec.gov. You may also read and copy the registration statement and any other document we file with the SEC at its public reference facilities at 450 Fifth Street, N.W., Washington, D.C. 20549, 7 World Trade Center, Suite 1300, New York, New York 10048 and Citicorp Center, 500 West Madison Street, Suite 1400, Chicago, Illinois 60661-2511. Alternatively, you may obtain copies of the documents at prescribed rates by writing to the Public Reference Section of the SEC at 450 Fifth Street N.W., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facilities.

We "incorporate by reference" into this prospectus the information we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus. Information that we file subsequently with the SEC will automatically update this prospectus. We incorporate by reference the documents listed below, and any filings we make with the SEC under Sections 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934 after the initial filing of the registration statement that contains this prospectus and before the time that we sell all the securities offered by this prospectus:



our registration statement on Form S-3, as originally filed on July 22, 1999 (File No. 333-83469) and subsequently amended, including any amendment or report filed for the purpose of updating the description.

You may request a copy of these filings at no cost, by writing to or telephoning us at the following address.

Oxboro Medical, Inc. 13828 Lincoln Street NE Ham Lake, Minnesota 55304 (763) 755-9516

Attention: President

You should rely only on the information included or incorporated by reference in this prospectus. We have not authorized anyone else to provide you with different information. We are only offering these securities in states where the offer is permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front of the document. Information on our Web site is not a part of this prospectus.

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SUMMARY

This summary highlights information found elsewhere in the prospectus. Because this is a summary, it does not contain all of the information that may be important to you. Please read the entire prospectus carefully before you decide to invest.

The Business. Oxboro Medical, Inc. develops, assembles, markets and sells medical and surgical devices, including silicone loops, silicone and fabric clamp covers, instrument guards, suture aid booties, identification sheet and roll tape, and various holders and organizers for instruments used in the operating room. We sell our products, both through our own direct sales force and through independent distributors, primarily to hospitals, clinics and extended care facilities and home healthcare agencies. Our products are available throughout the United States and in selected international markets.

Our executive offices are located at 13828 Lincoln Street NE, Ham Lake, Minnesota 55304. Our telephone number is (763) 755-9516.

Securities Offered. We are offering an incentive warrant to eligible holders of the rights warrants we issued in connection with our September 1, 1999 rights offering. As of August 4, 2000, we had rights warrants issued and outstanding entitling the holders to purchase up to an aggregate of 417,794 shares of our common stock. We will issue incentive warrants for each rights warrant properly exercised on or before September 30, 2000. We will issue the incentive warrant at no additional cost. The term of the incentive warrant is three years, and the exercise price of the incentive warrant is , subject to adjustment. The offering period began on the date of this prospectus and will continue until 12:00 midnight, Central Time, September 30, 2000.

Shares of Common Stock Authorized and Outstanding. We have 20,000,000 shares of common stock authorized, \$.01 par value, of which approximately 1,360,503 shares are issued and outstanding at the date of this offering. We have 5,000,000 undesignated shares authorized, \$.01 par value per share, none of which are issued and outstanding. We also have granted options that entitle the holders to purchase a total of 128,900 shares of common stock at prices ranging from \$3.50 to \$7.50 per share. These options vest at varying rates and expire on various dates during the period from December 2001 through July 2010.

Basic Warrant Privilege. Subject to the terms of this offering, each incentive warrant entitles its holder to purchase shares of common stock, at an exercise price of \$\\$ per share, subject to adjustment, at any time prior to September 29, 2003.

Purpose of the Offering. We are offering these incentive warrants to induce the holders of our rights warrants to exercise those rights warrants on or before September 30, 2000. The exercise of the rights warrants will provide us with proceeds for use in our operations and will strengthen our capitalization.

Use of Proceeds. Because we are not issuing the incentive warrants for cash consideration, we will receive no direct proceeds from the issuance of the incentive warrants. However, we will receive proceeds from the exercise of the rights warrants and the exercise of the incentive warrants. We intend to use the proceeds from the exercise of the rights warrants and the incentive warrants, for working capital, possible acquisitions of companies engaged in businesses similar or complementary to ours, purchases of equipment, products or product lines, research and development, repayment of debt and other general corporate purposes.

Eligibility Date. Holders of rights warrants during the term of this offering are eligible to receive incentive warrants.

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Offering Commencement and Expiration Date. This offering commences on the date of this prospectus. Holders of the rights warrants must exercise their rights warrants on or before 12:00 midnight, Central Time, September 30, 2000 to receive incentive warrants.

Nasdaq Symbol. Our common stock is listed on The Nasdaq SmallCap Market under the symbol "OMED." Neither the rights warrants nor the incentive warrants are listed on The Nasdaq SmallCap Market.

Transferability of Rights. The incentive warrants issued in this offering are transferable, but we will not apply for the incentive warrants to be listed on any exchange.

Transfer Agent. Wells Fargo Bank Minnesota, N.A. is our transfer agent and will act as our subscription agent for this offering.

Securities Outstanding After This Offering. If all of the outstanding rights warrants are exercised in full before their termination date and in connection with this offering, we will have 1,778,297 shares of common stock outstanding after the offering and outstanding incentive warrants entitling the holders to purchase up to 417,794 shares of our common stock. We will have 2,196,091 shares of common stock outstanding upon full exercise of the incentive warrants.

Federal Income Tax Consequences of the Warrant Offering. Rights warrant holders will not recognize taxable income for federal income tax purposes in connection with receipt of the incentive warrants in this offering. See "Material United States Federal Income Tax Considerations."

Risk Factors. Please see "*Risk Factors*" for a discussion of certain risks that you should consider when determining whether to invest in this offering.

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RISK FACTORS

This offering involves a high degree of risk. You should carefully consider the risks described below and the other information contained in this prospectus before deciding to invest in warrants of our common stock.

We have sustained losses in the past due to subsidiary operations

We have incurred substantial losses in recent years that have depleted our working capital and reduced our stockholders' equity. Although our business recently achieved profitability, with a net profit of \$486,160 for the six months ended March 31, 2000, we incurred a net loss of \$947,692 for the year ended September 30, 1999 and a net loss of \$1,453,544 for the year ended September 30, 1998. These losses resulted principally from expenses incurred in the development of our former subsidiary, Oxboro Outdoors, Inc., expenses due to payment of severance packages to our former officers in connection with related proxy litigation and a one-time medical inventory write down of approximately \$240,000 in fiscal year 1999. On June 30, 1999, we completed the sale of Oxboro Outdoors, Inc. However, prior to the sale and

as a result of losses in Oxboro Outdoors, Inc. we incurred significant operating losses. Although we have taken measures to increase our sales revenues and profit margins and expect to show further improvement as a result of the sale of Oxboro Outdoors, Inc. there can be no assurance that our core business will continue to operate profitably in the future.

If we cannot maintain adequate operating capital and bank financing, our business will suffer

Our business plan and financial needs are subject to change depending on, among other things, market conditions, business opportunities and cash flow from operations, if any. We currently have a \$550,000 line of credit that expires on March 31, 2001. There can be no assurance that this line of credit will be extended beyond that date. As of August 3, 2000, we owed nothing on our line of credit. In the future, we expect to continue to borrow against this or some other line of credit yet to be negotiated. However, there can be no assurance that we will have sufficient resources in the future to fulfill our obligations in a timely manner under any such loan agreement. Failure to meet our loan obligations would have a material adverse effect on our business.

If we do not remain competitive in the markets we serve, our business will be adversely affected

There is growing pressure on healthcare providers in general, and the surgical area in particular, to reduce costs. The trend is towards hospitals purchasing through buying groups and other large distributors, which generally occurs at lower prices than selling direct to the customer. This trend will make it difficult to maintain and grow sales at our historic profit margins. If we are not able to introduce new products into such an economic environment and compete at lower prices than other larger distributors, our business will be adversely affected.

We are dependent on our management and key personnel to succeed

Our principal executive officers and key personnel have extensive experience in sales of medical products, which requires research and development efforts to bring our products to market. Our continued success also depends on the ability of our marketing and sales program to implement and close the sales. Competition for qualified sales and marketing personnel is intense. In addition, the loss of the services of any of our executive officers or other key personnel, or our failure to attract and retain other skilled and experienced personnel on acceptable terms, could impede the achievement of our business objectives and have a material adverse effect on our business.

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The pricing strategies of our competitors and our response to those strategies may result in a decline in our revenues

The medical products market is extremely competitive. We believe that the principal competitive factors in our market are selection, price, customer service, convenience, product quality, reliability and speed of order fulfillment. We believe that among our direct competitors are firms with longer operating histories, larger customer bases, greater financial and marketing capability, and greater resources and experience than we have. We compete with companies including Scanlon Instruments, Key Surgical and Healthmark. In addition, our competitors are often able to offer lower prices than we can and thus can limit our penetration and market share. These factors may have an adverse impact upon our business.

If we do not prevail in a license dispute with a former officer, our revenues and profits could decline

On March 30, 1999, Larry A. Rasmusson, our former Chief Executive Officer and a former director of Oxboro, notified us that he believed we were in default on exclusive license agreements that we executed with him relating to some of our medical products, including bulldogs, fabric ties, Radiopaque fabric clamp covers, bulk and fabric tape, loops, surgical booties, various types of instrument and specialty guards, a tape stripper, patient hangars and patient care holders. As a result, Mr. Rasmusson has taken the position that the rights to these medical products have reverted back to him. We believe we are not in default. Mr. Rasmusson has not initiated legal action to terminate the royalty agreements, but if he were to do so we would aggressively defend ourselves in such action and would challenge the validity of such agreements. In that event, and if necessary and appropriate, we will seek to terminate such agreements and take whatever other actions may be appropriate, including commencing litigation, to terminate the agreements or have them declared invalid or both. If, however, the royalty agreements are found valid, and any resulting litigation is determined adversely to us, we may lose the right to manufacture and distribute

products related to the royalty agreements. This would have a substantial negative impact on our revenues and profits until we were able to acquire or develop alternate products.

The success of competitive products could have an adverse effect on our business

The medical products industry is intensely competitive and hospitals have a wide variety of product choices and technologies from which to choose. The success of any competing alternative product to those provided by Oxboro could have a material adverse effect on our business, financial condition and results of operations. We believe that our competitors include companies that have substantially greater financial capabilities for product development and marketing than we do and can therefore market their products or procedures to hospitals and the medical community in a more effective manner. In addition, companies having proprietary rights to the products we sell could choose to market their products directly to our customers and competitors selling the same or similar products may duplicate our marketing methods and reduce our ability to effectively sell our product lines. In either event, our business would be materially adversely affected by these actions.

If we fail to acquire products or develop new products, our business will be adversely affected

Some of our revenue is used to acquire product lines and develop new products, and we are currently evaluating several product lines. Although the company often evaluates new products to offer to its customers, there can be no assurance that we will be able to acquire or successfully develop new products. Failure to do so would have a materially adverse effect on our business.

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Fluctuations in our quarterly operating results may negatively affect our stock price

We may experience variability in our net sales and operating profit on a quarterly basis as a result of many factors, including, among other things, the buying habits of our customers, size and timing of orders by certain customers, shifts in demand for types of products, technological changes and industry announcements of new products. If revenues do not meet expectations in any given quarter, our operating results, financial condition and stock price may suffer.

We depend upon third party suppliers

We currently purchase our component materials from several sources. Alternative suppliers for these materials exist should the current suppliers discontinue production or distribution. However, we would need to investigate the materials obtained from any new suppliers for quality and performance. Additionally, limited notice of the need to switch suppliers for any reason could affect our ability to fulfill customer orders, which would have a material adverse effect on our profitability. We have not experienced any difficulty with suppliers to date. However, there can be no assurance that delays in the distribution or sale of our products will not occur in the future.

If a product we sell injures a user, we could be subject to a product liability exposure

We sell medical products that may involve product liability risk. We carry general casualty insurance, including coverage for product liability claims up to \$1 million per incident and \$2 million aggregate per year. We also carry liability umbrella coverage of \$3 million. However, there can be no assurance that this coverage will be adequate for any claims that may be raised. We are not aware of any pending product liability claims against us. However, a successful product liability suit could materially adversely affect our business operations.

Shareholders who hold less than 100 shares may pay disproportionate commissions on sale of their shares

Partially as a result of our 1-for-5 reverse stock split effected August 13, 1999, we have a number of shareholders who hold fewer than 100 shares. It is our understanding that the minimum unit for our common stock traded by broker-dealers in The Nasdaq SmallCap market is a round lot of 100 shares. Because of this, and the fact that a number of brokerage firms have minimum commission amounts, shareholders holding fewer than 100 shares of our common stock might pay a disproportionately high level of commissions upon sale of their shares.

There is no assurance that future capital will be available to us, and additional capital will dilute the holdings of our stockholders

Our shareholders have no preemptive rights. If we:

- 1. commence a subsequent public or private offering of common stock, convertible debt, or preferred stock; or
- 2. issue preferred stock or warrants of common stock upon exercise of warrants to consultants or other parties providing goods or services to us in lieu of or in addition to cash consideration,

our shareholders who do not participate in any future stock issuance will experience dilution of their equity investment. At this time, we cannot determine the potential dilution to our shareholders.

We cannot assure that additional financing will be available, or if available, that it will be available on terms favorable to our shareholders. If funds are not available to satisfy our short-term and long-term operating requirements, we may limit or suspend our operations in the entirety or, under

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certain circumstances, seek protection from creditors. We believe that future financing undertaken may contain terms that could result in more substantial dilution than we now have, which would adversely affect our business.

Our stock price may be materially affected by market volatility

The stock market has, from time to time, experienced significant price and volume fluctuations that have affected the market prices of companies similar to ours and these fluctuations often have been unrelated to the operating performance of such companies. Factors not directly related to our performance, such as negative industry reports or disappointing earnings announcements by publicly traded competitors, may have an adverse impact on the market price of our common stock. In the past, following periods of volatility in the market price of a company's securities, securities class action claims have often been brought against that company. This litigation could result in substantial costs and a diversion of management's attention and resources.

Changes in government regulation of the products we sell may negatively affect our business

Our products are regulated by government agencies in the United States and foreign countries. In the United States, our products are regulated by the Food and Drug Administration. The FDA regulates, among other things, (1) the content of our products, (2) the product labels, (3) the claims in our product literature and advertising, and (4) the manufacture of the products. The FDA and other government agencies may in the future issue new regulations, or issue new interpretations of existing regulations, which affect the manufacture, marketing and sale of our products. Our operations may also be affected if Congress passes new legislation or if courts issue new rulings with respect to existing legislation. We can offer no assurance that we will not be adversely affected by new, or newly interpreted, regulatory requirements.

We may not register or qualify the incentive warrants in certain states

We have agreed to use reasonable efforts to register and/or qualify the incentive warrants in all jurisdictions in which holders of the rights warrants reside. We reserve the right not to offer the incentive warrants in states where, in the discretion of our Board of Directors, registration or qualification is prohibitively expensive or burdensome. Holders of the rights warrants who reside in those states will be unable to participate in this offering.

SPECIAL NOTE REGARDING FORWARD LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve risks and uncertainties. When used in this prospectus, the words or phrases "believes," "anticipates," "expects," "intends," "estimates" or similar expressions are intended to identify forward-looking statements, but are not the exclusive means of identifying such statements. These forward-looking statements involve risks and uncertainties that may

cause our actual results to differ materially from those expressed or implied by the forward-looking statements. Important factors that could cause our actual results to differ materially from projections include, but are not limited to, those discussed in "Risk Factors," and "Business," as well as those discussed elsewhere in this prospectus. Given these uncertainties, you should not place undue reliance on the forward-looking statements. We do not intend to update any forward-looking statements.

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BUSINESS

General. Oxboro Medical, Inc. develops, assembles, and markets medical and surgical devices. Until June 30, 1999, Oxboro also developed, assembled and marketed products for the fishing, hunting, and related outdoor recreational markets through a wholly-owned subsidiary, Oxboro Outdoors, Inc. On June 30, 1999, we sold all of the outstanding stock of Oxboro Outdoors, Inc. to a group of private investors.

Products. Principal medical products produced and sold by us include silicone loops, silicone and fabric clamp covers, instrument guards, suture aid booties, identification sheet and roll tape, and various holders and organizers for instruments used in the operating room.

Oxboro's Strategy. Our business efforts currently focus on the sale of our medical products. Our strength is our base of approximately 3,500 customers who purchase our surgical devices and instrument reprocessing accessories. We will attempt to capitalize on this base through efforts to increase the breadth of our limited product line, through acquisitions, license agreements, distribution agreements and through the development of new products.

Marketing, Sales and Distribution. Approximately 65% of our sales of medical products are direct sales to over 3,500 medical centers throughout the United States. We accomplish direct sales through an in-house telemarketing sales force. In recent years, an increasing proportion of our sales have been effected through foreign distributors and distributors and kit packers in the United States. We expect this trend to continue.

Research and Development. Historically, we have not spent a substantial amount on research or development of new products. We now, however, have a new focus on medical products sales with a goal of expanding our product lines. We anticipate that research and development expenditures will grow rapidly in the future, should attractive opportunities arise.

Competition. We operate in a highly competitive industry in which there are many established companies, including Scanlon Instruments, Key Surgical and Healthmark, among others. Companies with stronger financial resources may be able to develop and market similar or competing products and reduce or negate any competitive advantage that we may have due to the proprietary nature of their products or their ability to more successfully market those products.

Government Regulation. Because we manufacture and sell medical products, both the products and the manufacturing procedures are subject to regulation in the United States by the Food and Drug Administration and in the European Community by the Medical Device Directives. As a result, we are subject to extensive rules and regulations, compliance with which may require expenditure of material amounts. In addition, should Oxboro fail to comply with these regulations, we would be subject to administrative and criminal actions, which could have a material adverse effect on our business. Oxboro is also subject to CE Mark Certification, to which we must adhere in order to continue to sell our products in certain international markets. Our continued compliance with all regulatory requirements may require significant expenditures.

Patents, Trademarks and Proprietary Rights. Many of the products we currently market are not unique. Accordingly, we believe that the effect of patents on other than a few select products would be negligible. If we substantially develop and test any new unique products, patent protection could be important. However, it may not be available. Also, we may incur substantial costs in attempting to secure patent protection for any new products.

USE OF PROCEEDS

Because we are not issuing the incentive warrants for cash, we will receive no direct proceeds from this incentive warrant offering. However, we will receive proceeds from the exercise of the rights warrants and the incentive warrants. We intend to use the proceeds from the exercise of the rights warrants and the incentive warrants for working capital, possible acquisitions of companies engaged in businesses similar or complementary to ours, purchases of equipment, products or product lines, research and development, repayment of debt and other general corporate purposes. Pending the uses specified above, we will invest any balance of the rights warrants proceeds in short-term, high quality interest bearing investments.

PLAN OF DISTRIBUTION

We are offering the incentive warrants to the holders of our rights warrants without reliance upon an independent investment banker. We intend to distribute copies of this prospectus to the record holders of our rights warrants promptly following the effective date of the registration statement of which this prospectus forms a part. Any rights warrant holder who desires to obtain an incentive warrant must properly exercise the holder's rights warrant on or before September 30, 2000. Upon such timely exercise, we will issue the rights warrant holder an incentive warrant enabling the holder of the incentive warrant to acquire that number of shares of common stock equal to the number of shares of common stock acquired by the holder upon proper exercise of the holder's rights warrant on or before September 30, 2000. This offering expires on 12:00 midnight, Central Time, on September 30, 2000.

Our employees, officers or directors may solicit responses from rights warrant holders, but these persons will not receive any commissions or compensation for their services other than their normal employment compensation. We will pay no dealers' fees or finders' fees in connection with this offering of incentive warrants.

We have agreed to use reasonable efforts to register and/or qualify the incentive warrants in all jurisdictions in which holders of the rights warrants reside. We reserve the right not to offer the incentive warrants in states where, in the discretion of our Board of Directors, registration or qualification is prohibitively expensive or burdensome. Holders of the rights warrants who reside in those states will be unable to participate in this offering.

DESCRIPTION OF SECURITIES

We are authorized to issue 20,000,000 shares of common stock, par value \$.01. As of August 4, 2000, 1,360,503 shares of common stock were outstanding. We also are authorized to issue 5,000,000 undesignated shares, \$.01 par value. However, as of the date of this offering we have not issued any undesignated shares.

Common Stock. Each share of common stock is entitled to one vote on all matters submitted to a vote of the stockholders. Stockholders do not have cumulative voting rights. The absence of cumulative voting rights means that the holders of a majority of the outstanding shares of common stock can elect all the directors then standing for election.

Subject to the rights and preferences of any preferred stock, each share of common stock has an equal and ratable right to receive dividends legally declared by our Board of Directors, out of any funds legally available for the payment thereof. In the event of our liquidation, dissolution or winding up, after satisfaction of amounts payable to creditors and distribution to the holders of outstanding preferred stock, if

any, of amounts to which they may be preferentially entitled, holders of the common stock are entitled to share ratably, on a per share basis, in the assets available for distribution to the stockholders.

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Holders of common stock are not entitled to conversion or preemptive rights. All outstanding shares of common stock are, and when issued, the shares of common stock issued in connection with this offering will be, fully paid and nonassessable.

Undesignated Stock. We currently have 5,000,000 shares of \$.01 par value undesignated stock. In the future, our Board of Directors may establish one or more classes or series from this undesignated stock and may fix the relative rights and preferences of each such class or series, including, but not limited to, fixing the relative voting rights, if any, of each such class or series to the full extent permitted by law.

As required by the California Department of Corporations in connection with our 1999 rights offering, at our March 16, 2000, annual meeting, our shareholders elected to no longer be subject to Section 302A.673, Subdivision 3(b)(3) of the Minnesota Business Combinations Statute (the "MBCS"), dealing with business combinations with interested shareholders, and our shareholders also elected not to be subject to the Minnesota Control Share Acquisition Statute, Section 302A.671, et. seq. of the Minnesota Statutes (the "Control Share Act").

The MBCS is used as an anti-takeover defense to protect corporations from unsolicited acquisitions. It provides that a corporation may not engage in a "business combination" (as defined) with an "interested shareholder" (as defined) for a period of four years following the interested shareholder's "share acquisition date" (as defined) unless the business combination or the acquisition of shares by the interested holder is approved by a committee of the Board of Directors in accordance with the MBCS. The action by our shareholders reduced our antitakeover defenses by making it easier for new or existing shareholders who have acquired at least a ten percent controlling interest in the Company to effect a merger or other business combination with the Company.

The Control Share Act generally restricts the voting of certain percentages of voting control to be acquired in a "control share acquisition" (as defined) of an "issuing public corporation" (as defined) until after shareholder approval of the acquisition. As a result of the shareholders' action, all shareholders, including shareholders who acquire more than 20% of the voting power of the Company, are entitled to vote upon all matters affecting the Company, including votes that may result in its sale or discontinuation.

Rights Warrants. We currently have rights warrants entitling the holders to acquire an aggregate of 417,794 shares of common stock at a per share exercise price of \$2.75. The rights warrants expire on September 30, 2000, October 31, 2000 and November 30, 2000.

Options. We have granted options entitling the holders to purchase a total of 128,900 shares of common stock at prices ranging from \$3.50 to \$7.50 per share. These options vest at varying rates and expire on various dates during the period from December 2001 through July 2010.

Incentive Warrants. Each incentive warrant entitles its holder to purchase one share of common stock, at an exercise price of \$ per share, subject to adjustment, at any time prior to September 29, 2003.

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MATERIAL UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS

The following general discussion summarizes the material U.S. Federal Income Tax consequences to shareholders relating to this offering of incentive warrants. This discussion is a summary for general information purposes only, and is based upon the Internal Revenue Code of 1986, as amended, applicable Treasury Regulations, and judicial and administrative interpretations of the Code and Regulations, all as in effect on the date of this prospectus. Each shareholder should be aware that the Code, the Regulations and any interpretation thereof are subject to change and that any change could be applied retroactively. This summary does not discuss all aspects of federal income taxation that may be relevant to particular shareholders in light of their personal investment circumstances or to certain types of shareholders subject to

special treatment under the federal income tax laws (for example, banks, insurance companies, tax-exempt entities and foreign taxpayers). This discussion is limited to those Oxboro rights warrant holders who have held their Oxboro common stock as a capital asset within the meaning of the Code.

This summary also does not discuss any aspects of state, local or foreign tax laws. Shareholders are urged to consult their own tax advisors to determine the tax consequences that may be relevant to each of them in connection with the acquisition of incentive warrants in this offering.

Receipt of the Incentive Warrants. No gain or loss will be recognized by the Oxboro shareholders upon receipt of the incentive warrants.

Shareholder Basis in the Incentive Warrants. The basis of the incentive warrants received in connection with the exercise of the rights warrants should most likely be zero. If, however, either (i) the fair market value of the incentive warrants on the date that they are distributed is 15% or more of the fair market value of the shares of Oxboro common stock with respect to which they are received or (ii) the shareholder elects, as part of the shareholder's Federal Income Tax return for the taxable year in which the rights are received, to allocate basis, then part of the shareholder's basis in shares of Oxboro common stock will be allocated between the Oxboro common stock and the incentive warrants in proportion to the fair market value of each on the date of this offering.

Lapse of the Incentive Warrants. Oxboro incentive warrant holders who allow the incentive warrants received by them to lapse will not recognize any gain or loss.

Exercise of the Incentive Warrants; Basis and Holding Period of Shares and the Incentive Warrants. Incentive warrant holders will not recognize any gain or loss upon the exercise of the incentive warrants. The basis of the Oxboro common stock acquired through exercise of the incentive warrants will be equal to the sum of the price paid therefor and the basis in the incentive warrant, if any. A shareholder's holding period for the Oxboro common stock acquired through exercise of the incentive warrants will begin on the date the incentive warrants are exercised.

Sale of Warrants. A sale of the incentive warrants will result in the recognition of capital gain or loss in an amount equal to the difference between the amount realized on the sale and the incentive warrant holder's adjusted basis in the Oxboro incentive warrant. The gain or loss will be classified as long-term capital gain or loss if the warrant holder held the incentive warrants for more than twelve months. If the warrants were held for less than twelve months, the gain or loss will be a short-term gain or loss.

Sale of Shares. A sale of the shares of Oxboro common stock acquired through the exercise of the incentive warrants will result in the recognition of capital gain or loss in an amount equal to the difference between the amount realized on the sale and the shareholder's adjusted basis in the Oxboro common stock. The gain or loss will be classified as long-term capital gain or loss if the shareholder held the shares for more than twelve months. If the shares were held for less than twelve months, the gain or loss will be a short-term gain or loss.

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LEGAL OPINIONS

Lindquist & Vennum P.L.L.P. will issue an opinion about the legality of the securities offered by this prospectus.

EXPERTS

Grant Thornton LLP, independent certified public accountants, has audited our consolidated financial statements included in our Annual Report on Form 10-KSB for the year ended September 30, 1999, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement in reliance upon their authority as experts in accounting and auditing.

INDEMNIFICATION

The Oxboro Articles of Incorporation eliminate or limit certain liabilities of its directors and the Oxboro bylaws provide for indemnification of directors, officers and employees of Oxboro in certain instances. Insofar as indemnification for liabilities arising under the Securities Act of 1933 (the "Act") may be permitted to directors, officers or persons controlling Oxboro pursuant to the foregoing provisions, Oxboro has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is therefore unenforceable.

No dealer, salesperson or other individual has been authorized to give any information or to make any representations other than those contained in this Prospectus or any Prospectus Supplement 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 the Company. This Prospectus and any Prospectus Supplement does not constitute an offer to sell, or solicitation of an offer to buy, any securities offered hereby to any person in any jurisdiction where such offer or solicitation would be unlawful. Neither the delivery of this Prospectus nor any sale made hereunder shall, under any circumstances, create any implication that the information contained herein is correct as of any time subsequent to the date hereof.

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Warrants to Purchase 417,794 Shares of Common Stock

OXBORO MEDICAL, INC.

PROSPECTUS

August , 2000

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PART II INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. Other Expenses of Issuance and Distribution

The following is an estimate, subject to future contingencies, of the expenses to be incurred by the registrant in connection with the issuance and distribution of the securities being registered:

Registration Fee	\$ 441
NASD Fee	0
Accounting Fees and Expenses*	2,500
Legal Fees and Expenses*	20,000
Blue Sky Expenses*	1,000
Printing Expenses*	10,000
Transfer Agent and Registrar Fees*	5,000
Miscellaneous*	6,059

Total \$ 45,000

*

Estimated pursuant to instruction to Item 511 of Regulation S-B.

ITEM 15. Indemnification of Directors and Officers

The Oxboro Articles of Incorporation provide for the indemnification of directors, and the Oxboro bylaws provide for the indemnification of its directors, officers, employees, and agents, in accordance with, and to the fullest extent permitted by, the provisions of the Minnesota Business Corporation Act, as amended from time to time.

Section 302A.521 of the Minnesota Statutes requires, among other things, the indemnification of persons made or threatened to be made a party to a proceeding by reason of acts or omissions performed in their official capacity as an officer, director, employee or agent of the corporation against judgments, penalties and fines (including attorneys' fees) if such person is not otherwise indemnified, acted in good faith, received no improper benefit, reasonably believed that such conduct was in the best interests of the corporation, and, in the case of criminal proceedings, had no reason to believe the conduct was unlawful. In addition, Section 302A.521, subd. 3, of the Minnesota Statutes requires payment by the corporation, upon written request, of reasonable expenses in advance of final disposition in certain instances if a decision as to required indemnification is made by a disinterested majority of the Board of Directors present at a meeting at which a disinterested quorum is present, or by a designated committee of the Board, by special legal counsel, by the shareholders or by a court.

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ITEM 16. Exhibits

The following Exhibits are filed as part of this Registration Statement:

Exhibit No.	Description
3(a)*	Articles of Incorporation of the registrant, as amended
3(b)**	Bylaws of the registrant, as amended
4(b)***	Form of Common Stock Certificate
4(c)	Letter to Rights Warrant Holders
4(d)	Form of Warrant Agreement
4(e)	Form of Warrant Certificate
5	Opinion of Lindquist & Vennum P.L.L.P., counsel to Oxboro Medical, Inc.
23(a)	Consent of Lindquist & Vennum P.L.L.P., counsel to Oxboro Medical, Inc. (included as part of Exhibit 5)
23(b)	Consent of Grant Thornton LLP
24	Power of Attorney (included with signature page)

Incorporated by reference from the Company's Quarterly Report on Form 10-QSB for the quarter ended March 31, 2000.

Incorporated by reference from the Company's Annual Report on Form 10-KSB for the year ended September 30, 1998.

Incorporated by reference from the Company's Form S-3 (File No. 333-83469), originally filed with the SEC on July 22, 1999.

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:
 - (i) to include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
 - (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 prospectus filed with the Commission 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 additional or changed material information on the plan of distribution.

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed by

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the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the Registration Statement.

- (2) That, for determining any liability under the Securities Act of 1933, treat each post-effective amendment as a new registration statement of the securities offered, and the offering of the securities at that time to be the initial bona fide offering.
- (3) File a post-effective amendment to remove from registration any of the securities that remain unsold at the termination of the offering.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 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 of 1933 (the "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 Securities and Exchange Commission such indemnification is against public policy as expressed in the 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 Act and will be governed by the final adjudication of such issue.
- (d) That, for purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act of 1933 shall be deemed to be part of this Registration Statement as of the time it was declared effective.

(e) That, for the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form
of prospectus 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.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, 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 registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Ham Lake, State of Minnesota, on August 11, 2000.

OXBORO MEDICAL, INC.

/s/ MATTHEW E. BELLIN

By:

Matthew E. Bellin

President and Chief Operating Officer

(Principal Executive Officer)

POWER OF ATTORNEY

We, the undersigned officers and/or directors of Oxboro Medical, Inc., a Minnesota corporation, do hereby make, constitute and appoint Matthew E. Bellin and Linda Erickson, or either of them, as our true and lawful attorneys-in-fact and agents, each with full power of substitution and resubstitution, for us and in our names, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement and to file the same, with all exhibits and other supporting documents thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting upon the attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing necessary or incidental to the performance and execution of the powers herein expressly granted. This power of attorney shall remain in effect until revoked in writing by the undersigned.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed below on August 10, 2000, by the following persons in the capacities indicated.

Signature	Title	
/s/ MATTHEW E. BELLIN	President and Chief Operating Officer (Principal	
Matthew E. Bellin	Executive Officer)	
/s/ LINDA ERICKSON		
Linda Erickson	Chief Financial Officer (Principal Financial Officer)	

/s/ KENNETH W. BRIMMER Kenneth W. Brimmer	— Director
/s/ GARY W. COPPERUD Gary W. Copperud	— Director
/s/ GERVAISE WILHELM Gervaise Wilhelm	— Director
/s/ JOHN E. SAYER John E. Sayer	— Director

EXHIBIT INDEX

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	Exhibit	Document Description
1	lumber	
	3(a)*	Articles of Incorporation of the registrant, as amended
	3(b)**	Bylaws of the registrant, as amended
	4(b)***	Form of Common Stock Certificate
	4(c)	Letter to Rights Warrant Holders
	4(d)	Form of Warrant Agreement
	4(e)	Form of Warrant Certificate
	5	Opinion of Lindquist & Vennum P.L.L.P., counsel to the registrant
	23(b)	Consent of Grant Thornton LLP
*	Incorporat	ted by reference from the Company's Quarterly Report on Form 10-QSB for the quarter ended March 31, 2000.
**	Incorporat	ted by reference from the Company's Annual Report on Form 10-KSB for the year ended September 30, 1998.
***	Incorporat	ted by reference from the Company's Form S-3 (File No. 333-83469), originally filed with the SEC on July 22, 1999.
	псогрога	ted by reference from the Company's Form 5-5 (Fire No. 555-65407), Originally fried with the SEC on July 22, 1999.

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WHERE YOU CAN FIND MORE INFORMATION

SUMMARY

RISK FACTORS

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PLAN OF DISTRIBUTION

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EXHIBIT 4(c)

Letter to Rights Warrant Holders

August, 2000

[warrant holder name] [warrant holder address -1] [warrant holder address -2]

Dear Warrant Holder:

Oxboro Medical, Inc. has commenced an Incentive Warrant Offering to the holders of the Company's common stock purchase warrants issued in connection with the Company's September 1, 1999 rights offering (the "Right Warrants"). As an incentive to encourage exercise of the Rights Warrants, the Company is offering to each holder of the Rights Warrants a common stock purchase warrant (the "Incentive Warrants"). In order to receive an Incentive Warrant, you must exercise your Rights Warrant on or before September 30, 2000. There is no additional cost to you associated with the issuance of the Incentive Warrant. We will issue you an Incentive Warrant permitting you to purchase that number of shares of common stock equal to that number of shares of common stock you acquired pursuant to your exercise of your Rights Warrant on or before September 30, 2000. The per share exercise price of an Incentive Warrant is \$

Enclosed is a Prospectus dated August , 2000, together with a Warrant Exercise and Ownership Representation Agreement. You are encouraged to carefully review the Prospectus. The Warrant Exercise and Ownership Representation Agreement included with the prospectus must be completed and returned with the payment required for exercise of the Rights Warrants on or before September 30, 2000. All appropriate documentation and payments must be received on or before September 30, 2000. Following this period, you may exercise your Rights Warrants until the expiration date specified on the Rights Warrant, but you will be issued no Incentive Warrants unless the Rights Warrant is exercised on or before September 30, 2000.

Please contact Matthew E. Bellin, President, at Oxboro Medical, Inc., 13828 Lincoln Street NE, Ham Lake, Minnesota 55304 if you have questions concerning your rights to receive Incentive Warrants pursuant to this offering.

Very truly yours,

MATTHEW E. BELLIN
President

QuickLinks

Letter to Rights Warrant Holders

EXHIBIT 4(d)

WARRANT AGREEMENT

THIS AGREEMENT is made as of the day of September, 2000, by and between Oxboro Medical, Inc. (the "Company") and the Wells Fargo Bank Minnesota, National Association, South St. Paul, Minnesota (the "Warrant Agent").

RECITALS

The Company proposes to issue Common Stock Purchase Warrants (the "Warrants") evidencing the right to purchase an aggregate of up to 417,794 authorized but previously unissued shares of Common Stock, \$.01 par value per share, of the Company (the "Common Stock").

The Company desires the Warrant Agent to act on behalf of the Company, and the Warrant Agent desires so to act, in connection with the issuance, registration, transfer, exchange and exercise of the Warrants.

The Company and the Warrant Agent, each intending to be legally bound, hereby covenant and agree as follows:

ARTICLE 1 APPOINTMENT OF WARRANT AGENT; ISSUANCE, FORM AND EXECUTION OF WARRANT CERTIFICATES

- 1.1) Appointment of Warrant Agent. The Company hereby appoints the Warrant Agent to act as agent for the Company, and the Warrant Agent hereby accepts the agency established hereby and agrees to perform its agency duties in accordance with the terms and conditions of this Warrant Agreement.
- 1.2) Warrant Certificates. The Company shall execute and deliver to the Warrant Agent certificates that the Company has authorized to represent the Warrants ("Warrant Certificates"). The Warrant Certificates shall be substantially as set forth in Exhibit A hereto and may have such legends, summaries or endorsements printed, lithographed or engraved thereon as the Company may deem appropriate and as are not inconsistent with the provisions of this Warrant Agreement, or as may be required to comply with any law or with any rule or regulation of any stock exchange on which the Warrants may be listed, or to conform to usage. The Warrant Certificates shall be dated the date of their issuance.
- 1.3) Execution of Warrant Certificates. The Warrant Certificates shall be executed on behalf of the Company by a duly authorized officer of the Company, either manually or by facsimile signature printed thereon. The Warrant Certificates shall be manually countersigned by the Warrant Agent and shall not be valid for any purpose unless so countersigned. Any Warrant Certificate may be signed on behalf of the Company by the person who at the actual date of the signing of such Warrant Certificate shall have been the proper officer of the Company, although at the date of issuance of such Warrant Certificate any such person shall not be such officer of the Company.

ARTICLE 2 EXERCISE OF WARRANTS

2.1) Exercise. Any or all of the Warrants represented by each Warrant Certificate may be exercised by the holder thereof on any business day in the period beginning at 10:00 a.m. Minneapolis time on day after issuance and ending at 5:00 p.m. Minneapolis time on September 29, 2003, the Warrant Expiration Date, by surrender of the Warrant Certificate with the Purchase Form, which is printed on the reverse thereof (or a reasonable facsimile thereof), duly executed by such holder, to the Warrant Agent at its principal office in South St. Paul, Minnesota, accompanied by payment, in cash or by certified or official bank check payable to the order of the Company, in an amount equal to the

product of the number of shares of Common Stock to be issued upon exercise of the Warrant represented by such Warrant Certificate, as adjusted pursuant to the provisions of Article 3 hereof, multiplied by the exercise price then in effect (such price as so adjusted from time to time being herein called the "Exercise Price"), and such holder shall be entitled to receive such number of fully paid and nonassessable shares of Common Stock, as so adjusted, at the time of such exercise.

- 2.2) *Time of Exercise*. Each exercise of Warrants shall be deemed to have been effective immediately prior to the close of business on the business day on which the Warrant Certificate relating to such Warrants shall have been surrendered to the Warrant Agent as provided in Article 2.1, and at such time the person or persons in whose name or names any certificate or certificates for shares of Common Stock shall be issuable upon such exercise as provided in Article 2.3, shall be deemed to have become the holder or holders of record thereof.
- 2.3) Issuance of Shares of Common Stock; No Fractional Shares. As soon as practicable after the exercise of any Warrant, and in any event within 10 days thereafter, the Company at its expense (including the payment by it of any applicable issue taxes) will cause to be issued in the name of and delivered to the holder thereof or as such holder (upon payment by such holder of any applicable transfer taxes) may direct,
 - a certificate or certificates for the number of fully paid and nonassessable shares of Common Stock to which such holder shall be entitled upon such exercise plus, in lieu of any fractional share to which such holder would otherwise be entitled, an amount in cash equal to such fraction multiplied by the Market Price of the Company's Common Stock as determined in Section 3.2 of this Agreement.
 - in case such exercise includes only part of the Warrants represented by any Warrant Certificate, a new Warrant Certificate or Warrant Certificates of like tenor, calling in the aggregate on the face or faces thereof for the number of shares of Common Stock equal (without giving effect to any adjustment therein) to the number of such shares called for on the face of such Warrant Certificate minus the number of such shares designated by the holder for such exercise as provided in Article 2.1.
- 2.4) Assigned Warrant Certificates. Warrants, represented by a properly assigned Warrant Certificate, may be exercised by a new holder without first having a new Warrant Certificate issued.

ARTICLE 3 WARRANT PRICE; ADJUSTMENT OF WARRANT PRICE AND NUMBER OF WARRANT SHARES

- 3.1) *Establishment of Exercise Price*. Subject to adjustment as hereinafter provided, the Exercise Price per share of Common Stock shall be \$.
- 3.2) *Adjustments*. The per share Exercise Price and the number of Shares deliverable hereunder shall be adjusted as hereinafter set forth. If after the date hereof, the Company shall:
 - (1) take a record of the holders of its Common Stock for the purposes of entitling them to receive a dividend payable in, or other distribution of, Common Stock; or
 - subdivide its outstanding shares of Common Stock into a larger number of shares of Common Stock; or

- combine its outstanding shares of Common Stock into a smaller number of shares of Common Stock; or
- (4) issue by reclassification of its shares of Common Stock any other shares of Common Stock;

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Then the number of shares of Common Stock purchasable upon exercise of each Warrant immediately prior thereto shall be adjusted so that the holder of each Warrant shall be entitled to receive the kind and number of shares of Common Stock or other securities of the Company which he or it would have owned or have been entitled to receive after the happening of any of the events described above, had such Warrant been exercised immediately prior to the happening of such event or record date with respect thereto. An adjustment made pursuant to this paragraph (a) shall become effective immediately after the effective date of such event, retroactive to the record date, if any, for such event.

3.3) Consolidation, Merger or Combination. In the case of any consolidation or merger of the Company with another corporation, or the sale of all or substantially all of its assets to another person, or any reorganization or reclassification of the capital stock of the Company (except a split-up or combination provision for which provision is made in Article 3.2), then:

(a)

As a condition of such consolidation, merger, sale, reorganization or reclassification, lawful and adequate provision shall be made whereby the holder shall thereafter have the right to receive upon the basis and upon the terms and conditions specified herein and in lieu of the shares of the Common Stock immediately theretofore subject to acquisition hereunder, such shares of stock, securities or assets as may (by virtue of such consolidation, merger, sale, reorganization or reclassification) be issued or payable with respect to or in exchange for a number of outstanding shares of such common stock equal to the number of shares of such Common Stock immediately theretofore so subject to acquisition hereunder had such consolidation, merger, sale, reorganization or reclassification not taken place, and in any such case appropriate provisions shall be made with respect to the rights and interests of the holder to the end that the provisions hereof (including, without limitation, provisions for adjustments of the Exercise Price) shall thereafter be applicable as nearly as may be, in relation to any shares of stock, securities or assets thereafter deliverable upon the exercise of the conversion option. The Company shall not effect any such consolidation, merger or sale, unless prior to or simultaneously with the consummation thereof, the successor person or persons purchasing such assets or succeeding or resulting from such consolidation, merger, reorganization or reclassification shall assume by written instrument executed and mailed or delivered to the holder, the obligation to deliver to such holder such shares of stock, securities or assets as, in accordance with the foregoing provisions, the holder may be entitled to receive.

(b)

In the event that the Company shall make any distribution of its assets upon or with respect to its Common Stock, as a liquidating or partial liquidation dividend, or other than as a dividend payable out of earnings or any surplus legally available for dividends under the laws of the State of Minnesota, the holder shall, upon the exercise of his right to convert after the record date for such distribution or, in the absence of a record date, after the date of such distribution, receive in addition to the shares subscribed for, the amount of such assets (or, at the option of the Company, a sum equal to the value thereof at the time of distribution as determined in good faith by the Board of Directors in its sole discretion) which would have been distributed to the holder if he or it had exercised his or its Warrants immediately prior to the record date for such distribution or, in the absence of a record date, immediately prior to the date of such distribution).

3.4) *Fractional Shares*. Fractional shares shall not be issued upon the exercise of any Warrant but in any case where the holder would, except for the provisions of this Article, be entitled under the terms hereof to receive a fractional share, the Company shall, upon the exercise

of any Warrant for the largest number of whole shares then called for, pay a sum in cash equal to the sum of (a) the excess, if any, of the Market Price of such fractional share over the proportional part of the per share Exercise Price represented by such fractional share *plus* (b) the proportional part of the per share Exercise Price represented by such fractional share.

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- 3.5) Reservation and Listing of Common Stock. The Company will at all times reserve solely for issuance and delivery upon the exercise of the Warrants, all shares of Common Stock from time to time issuable upon such exercise. All such shares shall be duly authorized and, when issued upon such exercise, shall be validly issued, fully paid and nonassessable with no liability on the part of the holder thereof. The Company at its expense will list on each national securities exchange on which any Common Stock may at any time be listed, subject to official notice of issuance, and will maintain such listing of, the shares of Common Stock from time to time issuable upon the exercise of the Warrants.
- 3.6) Registration of Common Stock. The Company will at all times there are Warrants outstanding use its best efforts to (i) maintain an effective registration statement under the Securities Act of 1933, as amended (the "Act"), covering Common Stock issuable in respect of the Warrants, and from time to time shall amend or supplement the prospectus contained in such registration statement to the extent necessary in order to comply with applicable law and (ii) maintain qualifications in those jurisdictions in which the Rights were initially qualified to permit exercise of the Warrants and the issuance of the Common Stock pursuant to such exercise.

ARTICLE 4 CERTAIN OTHER PROVISIONS RELATING TO RIGHTS OF HOLDERS OF WARRANT CERTIFICATES

- 4.1) No Rights of Shareholders. The warrant Certificates shall be issued in registered form only. No Warrant Certificate shall entitle the holder thereof to any of the rights of a holder of shares of Common Stock of the Company, including, without limitation, the right to vote, to receive dividends and other distributions, or to receive any notice of, or to attend, meetings of holders of Common Stock or any other proceedings of the Company.
- 4.2) Loss, Theft, Etc. of Warrant Certificates. Upon receipt by the Warrant Agent of evidence reasonably satisfactory to the Warrant Agent of the loss, theft, destruction or mutilation of any Warrant Certificate and, in the case of any such loss, theft, or destruction, upon delivery to the Warrant Agent of an indemnity bond in form and amount, and issued by a bonding company, reasonably satisfactory to the Company (or, in the case of any Warrant Certificate held by an institutional investor, an indemnity agreement reasonably satisfactory to the Company), or, in the case of any such mutilation, upon surrender to and cancellation by the Warrant Agent of such Warrant Certificate, the Company at its expense will execute and cause the Warrant Agent to countersign and deliver, in lieu thereof, a new Warrant Certificate of like tenor.
- 4.3) No Adequate Remedy at Law. The Company stipulates that the remedies at law of the holders of the Warrants in the event of any default or threatened default by the Company in the performance of or compliance with any of the terms of this Warrant Agreement and the Warrant Certificates are not and will not be adequate, and that such terms may be specifically enforced by a decree for the specific performance of any agreement contained in this Warrant Agreement and the Warrant Certificates or by an injunction against a violation of any of the terms of this Warrant Agreement and the Warrant Certificates or otherwise.
- 4.4) Transfer Agent; Cancellation of Warrant Certificates; Unexercised Warrants. Wells Fargo Bank Minnesota, National Association (and any successor), as the Company's transfer agent (the "Transfer Agent"), is hereby irrevocably authorized and directed at all times to reserve such number of authorized and unissued shares of Common Stock as shall be sufficient to permit the exercise in full of all Warrants from time to time outstanding. The Company will keep a copy of this Agreement on file with the Transfer Agent. The Warrant Agent, and any successor thereto, is hereby irrevocably authorized to requisition from time to time from the Transfer Agent certificates for shares of Common Stock required for exercises of Warrants. The Company will supply the Transfer Agent with duly executed certificates for shares of Common Stock for such purpose and will make available any cash required in settlement of fractional share interests. All Warrant Certificates surrendered upon the

exercise or redemption of Warrants shall be cancelled by the Warrant Agent and shall thereafter be delivered to the Company; such cancelled Warrant Certificates, with the Purchase Form on the reverse thereof duly filled in and signed, shall constitute conclusive evidence as between the parties hereto of the numbers of shares of Common Stock which shall have been issued upon exercises of Warrants. Promptly after the Expiration Date of the Warrants, the Warrant Agent shall certify to the Company the aggregate number of Warrants then outstanding and unexercised. No shares of Common Stock shall be subject to reservation with respect to Warrants not exercised prior to 5:00 p.m. Minneapolis time on the Expiration Date.

ARTICLE 5 TRANSFER AND EXCHANGE OF WARRANT CERTIFICATES

- 5.1) Warrant Register; Transfer or Exchange of Warrant Certificates. The Warrant Agent shall cause to be kept at the principal office of the Warrant Agent a register (the "Warrant Register") in which, subject to such reasonable regulations as the Company may prescribe, provisions shall be made for the registration of transfers and exchanges of Warrant Certificates. Upon surrender for transfer or exchange of any Warrant Certificates, properly endorsed, to the Warrant Agent, the Warrant Agent at the Company's expense will issue and deliver to or upon the order of the holder thereof a new Warrant Certificate or Warrant Certificates of like tenor, in the name of such holder or as such holder (upon payment by such holder of any applicable transfer taxes) may direct, calling in the aggregate on the face or faces thereof for the number of shares of Common Stock called for on the face of the Warrant Certificate so surrendered. Any warrant Certificate surrendered for transfer or exchange shall be cancelled by the Warrant Agent and shall thereafter be delivered to the Company.
- 5.2) *Identity of Warrant Holders*. Until a Warrant Certificate is transferred in the Warrant Register, the Company and the Warrant Agent may treat the person in whose name the Warrant Certificate is registered as the absolute owner thereof and of the Warrants represented thereby for all purposes, notwithstanding any notice to the Contrary, except that, if and when any Warrant Certificate is properly assigned in blank, the Company and the Warrant Agent may (but shall not be obligated to) treat the bearer thereof as the absolute owner of the Warrant Certificate and of the Warrants represented thereby for all purposes, notwithstanding any notice to the contrary.

ARTICLE 6 CONCERNING THE WARRANT AGENT

- 6.1) Taxes. The Company will from time to time promptly pay to the Warrant Agent, or make provision satisfactory to the Warrant Agent for the payment of, all taxes and charges that may be imposed by the United States or any State upon the Company or the Warrant Agent upon the transfer or delivery of shares of Common Stock upon the exercise of Warrants, but the Company shall not be obligated to pay any tax imposed in connection with any transfer involved in the delivery of a certificate for shares of Common Stock in any name other than that of the registered holder of the Warrant Certificate surrendered in connection with the purchase thereof.
 - 6.2) Replacement of Warrant Agent in Certain Circumstances.

(a)

The Warrant Agent may resign its duties and be discharged from all further duties and liabilities hereunder after giving 30 days' notice in writing to the Company, except that such shorter notice may be given as the Company shall, in writing, accept as sufficient. The Company may discharge the Warrant Agent at any time with or without reason, effective upon 30 days' written notice to the Warrant Agent or such shorter period as the Warrant Agent shall, in writing, accept as sufficient. If the office of Warrant Agent becomes vacant by resignation, discharge, incapacity to act or otherwise, the Company shall appoint in writing a new Warrant Agent, the principal office of which shall be in Minnesota. If the Company shall fail to make such appointment within a period of

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30 days after it has been notified in writing of such resignation or incapacity by the resigning or incapacitated Warrant Agent or by the holder of a Warrant Certificate, then the holder of any Warrant Certificate may apply to

any court of competent jurisdiction for the appointment of a new Warrant Agent. Any new Warrant Agent, whether appointed by the Company or by such a court, shall be a corporation organized and doing business under the laws of the United States or of the State of Minnesota, of good standing, and having its principal office in Minnesota, which is authorized under such laws to exercise corporate trust cowers and is subject to supervision or examination by a Federal or State authority. Any new Warrant Agent appointed hereunder shall execute, acknowledge and deliver to the Company an instrument accepting such appointment hereunder and thereupon such new Warrant Agent without any further act or deed shall become vested with all the rights, powers, duties and responsibilities of the Warrant Agent hereunder with like effect as if it had been named as the Warrant Agent; but if for any reason it becomes necessary or expedient to have the former Warrant Agent execute and deliver any further assurance, conveyance, act or deed, the same shall be done at the expense of the Company and shall be legally and validly executed and delivered by the former Warrant Agent. Not later than the effective date of any such appointment the Company shall file notice thereof with the former Warrant Agent. The Company shall promptly give notice of any such appointment to the holders of the Warrant Certificates by mail to their addresses as shown in the Warrant Register. Failure to file or give such notice, or any defect therein, shall not affect the legality or validity of the appointment of the successor Warrant Agent.

(b)

Any company into which the Warrant Agent or any new Warrant Agent may be merged or converted or with which it may be consolidated or any company resulting from any merger, conversion or consolidation to which the Warrant Agent or any new Warrant Agent shall be a party shall be the successor Warrant Agent under this Warrant Agreement without any further act, provided that if such company would not be eligible for appointment as a successor Warrant Agent under the provisions of paragraph (a) of this Article 6.2 the Company shall forthwith appoint a new Warrant Agent in accordance with such provisions. Any such successor Warrant Agent may adopt the prior countersignature of any predecessor Warrant Agent and deliver Warrant Certificates countersigned and not delivered by such predecessor Warrant Agent or may countersign Warrant Certificates either in the name of any predecessor Warrant Agent or the name of the successor Warrant Agent.

- 6.3) Remuneration of Warrant Agent. The Company will pay the Warrant Agent reasonable remuneration for its services as Warrant Agent hereunder and will reimburse the Warrant Agent upon demand for all expenditures that the Warrant Agent may reasonably incur in the execution of its duties hereunder.
- 6.4) Further assurances. The Company will perform, exercise, acknowledge and deliver or cause to be performed, executed, acknowledged and delivered all such further and other acts, instruments and assurances as may reasonably be required by the Warrant Agent for the carrying out or performing by the Warrant Agent of the provisions of this Warrant Agreement.
 - 6.5) Limitations on liabilities of the Warrant Agent.
 - (a)

 The Warrant Agent may consult with legal counsel (who may be legal counsel for the Company), and the opinion of such counsel shall be full and complete authorization and protection to the Warrant Agent as to any action taken or omitted by it in good faith and in accordance with such opinion.
 - (b)
 Whenever in the performance of its duties under this Warrant Agreement the Warrant Agent shall deem it necessary or desirable that any matter be proved or established, or

that any instructions with, respect to the performance of its duties hereunder be given, by the Company prior to taking or suffering any action hereunder, such matter (unless other evidence in respect thereof be herein specifically prescribed) may be deemed to be conclusively proved and established, or such instructions may be given, by a certificate or instrument signed by an officer of the company and delivered to the Warrant Agent; and such certificate or instrument shall be full authorization to the Warrant Agent for any action taken or suffered in good faith by it under the provisions of this Warrant Agreement in reliance upon such certificate or instrument; but in its discretion the Warrant Agent may in lieu thereof accept other evidence of such matter or may require such further or additional evidence as it may deem reasonable.

- The Warrant Agent shall be liable hereunder only for its own negligence or willful misconduct. The Warrant Agent shall act hereunder solely as agent, and its duties shall be determined solely by the provisions hereof. The Company agrees to indemnify the Warrant Agent and save it harmless against any and all liabilities, including judgments, costs and counsel fees, for anything done or omitted by the Warrant Agent in the execution of this Warrant Agreement except as a result of the Warrant Agent's negligence or willful misconduct.
- (d)

 The Warrant Agent shall not be liable for or by reason of any of the statements of fact of recitals contained in this Warrant Agreement or in the Warrant Certificates (except its countersignature hereof) or be required to verify the same, but all such statements and recitals are and shall be deemed to have been made by the Company only.
- The Warrant Agent shall not be under any responsibility in respect of the validity of this Warrant Agreement or the execution and delivery hereof or in respect of the validity or execution of any Warrant Certificate (except its countersignature thereof); nor shall it be responsible for any breach by the Company of any covenant or condition contained in this Warrant Agreement or in any Warrant Certificate; nor shall it be responsible for the making of any adjustment in the Exercise Price, or number of shares issuable upon exercise of the Warrant Certificates or responsible for the manner, method or amount of any such adjustment or the facts that would require any such adjustment; nor shall it by any act hereunder be deemed to make any representation or warrant as to the authorization or reservation of any shares of Common Stock to be issued pursuant to this Warrant Agreement or any Warrant Certificate or as to whether any shares of Common Stock or other securities are or will be validly authorized and issued and fully paid and nonassessable.
- 6.6) Amendment and modification. The Warrant Agent may, without the consent or concurrence of the holders of the Warrant Certificates, by supplemental agreement or otherwise, join with the Company in making any changes or corrections in this Warrant Agreement that they shall have been advised by counsel (i) are required to cure any ambiguity or to correct any defective or inconsistent provision or clerical omission or mistake or manifest error herein contained, (ii) add to the obligations thereafter to be observed by it, or surrender any right or power reserved to or conferred upon the Company in this Warrant Agreement, or (iii) do not or will not adversely affect, alter or change the rights, privileges or immunities of the holders of Warrant Certificates; provided, however, that any term of this Warrant Agreement or any Warrant Certificate may be changed, waived, discharged or terminated by an instrument in writing signed by each party against which enforcement of such change, waiver, discharge or termination is sought, or by which the same is to be performed or observed.

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ARTICLE 7 OTHER MATTERS

7.1) *Successors and assigns*. All the covenants and provisions of this Warrant Agreement by or for the benefit of the Company or the Warrant Agent shall bind and inure to the benefit of their respective successors and assigns.

7.2) Notices. Any notice or demand authorized by this Warrant Agreement to be given or made by the Warrant Agent or by the holder of any Warrant Certificate to or on the Company shall be sufficiently given or made if sent by first-class or registered mail, postage prepaid, addressed (until another address is filed in writing by the Company with the Warrant Agent) as follows:

> Oxboro Medical, Inc. 13828 Lincoln Street N.E. Ham Lake, Minnesota 55304 Attention: Matthew E. Bellin, President

Any notice or demand authorized by this Warrant Agreement to be given or made by the holder of any Warrant Certificate or by the Company to in the Warrant Agent shall be sufficiently given or made if sent by first-class or registered mail, postage prepaid, addressed (until another address is filed in writing by the Warrant Agent with the Company) as follows:

> Wells Fargo Bank Minnesota, National Association 161 North Concord Exchange South St. Paul, Minnesota 55705

- 7.3) Governing law. This Warrant Agreement and the Warrant Certificates are being delivered in the State of Minnesota and shall be construed and enforced in accordance with and governed by the law of such State.
- 7.4) No Benefits Conferred. Nothing in this Warrant Agreement expressed and nothing that may be implied from any of the provisions hereof is intended, or shall be construed, to confer upon, or give to, any person or corporation other than the Company, the Warrant Agent, and the holders of the Warrant Certificates, any right, remedy or claim under or by reason of this Agreement or of any covenant, condition, stipulation, promise or agreement herein; and all covenants, conditions, stipulations, promises and agreements in this Warrant Agreement contained shall be for the sole and exclusive benefit of the Company, the Warrant Agent, their respective successors, and the holders of the warrant Certificates.
- 7.5) Headings. The descriptive headings used in this Warrant Agreement are inserted for convenience only and shall not control or affect the meaning or construction of any of the provisions hereof.

IN WITNESS WHEREOF, this Warrant Agreement has been duly executed by the parties hereto as of the day and year first above written.

OXBORO MEDICAL, INC. /s/ MATTHEW E. BELLIN Matthew E. Bellin, President WELLS FARGO BANK MINNESOTA, N.A.

By /s/ SUZANNE M. SWITS

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WARRANT AGREEMENT

RECITALS

ARTICLE 1 APPOINTMENT OF WARRANT AGENT; ISSUANCE, FORM AND EXECUTION OF WARRANT CERTIFICATES

ARTICLE 2 EXERCISE OF WARRANTS

ARTICLE 3 WARRANT PRICE; ADJUSTMENT OF WARRANT PRICE AND NUMBER OF WARRANT SHARES

ARTICLE 4 CERTAIN OTHER PROVISIONS RELATING TO RIGHTS OF HOLDERS OF WARRANT CERTIFICATES

ARTICLE 5 TRANSFER AND EXCHANGE OF WARRANT CERTIFICATES

ARTICLE 6 CONCERNING THE WARRANT AGENT

ARTICLE 7 OTHER MATTERS

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Number

WARRANTS NOT EXERCISED ON OR BEFORE 5:00 P.M., MINNEAPOLIS TIME, ON SEPTEMBER 29, 2003 SHALL BECOME VOID

Warrants

OXBORO MEDICAL, INC.

INCORPORATED UNDER THE LAWS OF THE STATE OF MINNESOTA WARRANT CERTIFICATE

THIS CERTIFIES THAT

WS-

WARRANTS CUSIP

, OR REGISTERED ASSIGNS, IS THE REGISTERED HOLDER OF

*** ***

(the "Warrants"), expiring at 5:00 p.m., Minneapolis time, on September 29, 2003 (the "Expiration Date"), to purchase Common Stock, \$.01 par value per share (the "Common Stock"), of OXBORO MEDICAL, INC., a Minnesota corporation (the "Company"). The Warrants may be exercised at any time from 9:00 a.m., Minneapolis time, on to 5:00 p.m., Minneapolis time, on the Expiration Date. Each Warrant entitles the holder upon exercise to receive from the Company, if exercised before 5:00 p.m., Minneapolis time, on the Expiration Date, one fully paid and nonassessable share of Common Stock (a "Warrant Share") at the Exercise Price (as defined in the Warrant Agreement referred to below), payable in lawful money of the United States of America, upon surrender of this Warrant Certificate and payment of the Exercise Price at the office or agency of the Warrant Agent but only subject to the conditions set forth herein and in the Warrant Agreement. The Exercise Price and number of Warrant Shares issuable upon exercise of the Warrants are subject to adjustment upon the occurrence of certain events as set forth in the Warrant Agreement.

The Warrants evidenced by this Warrant Certificate are part of a duly authorized issue of Warrants expiring on the Expiration Date entitling the holder on exercise to receive shares of Common Stock of the Company and are issued or to be issued pursuant to a Warrant Agreement dated as of , 2000 (the "Warrant Agreement"), duly executed and delivered by the Company to WELLS FARGO BANK MINNESOTA, N.A., a national banking association, as Warrant Agent (the "Warrant Agent"), which Warrant Agreement is hereby incorporated by reference in and made a part of this instrument and is hereby referred to for a description of the rights, limitation of rights, obligations, duties and immunities thereunder of the Warrant Agent, the Company and the holders (the words "holders" or "holder" meaning the registered holders or registered holder) of the Warrants. A copy of the Warrant Agreement may be obtained by the holder hereof upon written request to the Company. By accepting initial delivery, transfer or exchange of this Warrant, the duly registered holder shall be deemed to have agreed to the terms of the Warrant Agreement as it may be in effect from time to time, including any amendments or supplements duly adopted in accordance therewith.

The holder of Warrants evidenced by this Warrant Certificate may exercise them by surrendering this Warrant Certificate, with the Purchase Form on the reverse side hereof properly completed and executed, together with payment of the Exercise Price in the manner described below at the office of the Warrant Agent. In the event that upon any exercise of Warrants evidenced hereby the number of Warrants exercised shall be less than the total number of Warrants evidenced hereby, there shall be issued to the holder hereof or its assignee a new Warrant Certificate evidencing the number of Warrants not exercised.

Payment of the Exercise Price may be made in cash by wire transfer to the Warrant Agent for the account of the Company or by certified or official bank check or checks to the order to the Company or by any combination thereof.

The Warrant Agreement provides that upon the occurrence of certain events the number of shares of Common Stock issuable upon the exercise of each Warrant, and the Exercise Price of each Warrant, may, subject to certain conditions, be adjusted. No fractions of a share of Common Stock will be issued upon the exercise of any Warrant, but the Company shall pay the cash value thereof determined as provided in the Warrant Agreement.

Warrant Certificates, when surrendered at the office of the Warrant Agent by the registered holder thereof in person or by legal representative or attorney duly authorized in writing, may be exchanged, in the manner and subject to the limitations provided in the Warrant Agreement, but without payment of any service charge, for another warrant Certificate or Warrant Certificates of like tenor evidencing in the aggregate a like number of Warrants.

Upon due presentation for registration of transfer of this Warrant Certificate at the office of the Warrant Agent, a new Warrant Certificate or Warrant Certificates of like tenor and evidencing in the aggregate a like number of Warrants shall be issued to the transferee(s) in exchange of this Warrant Certificate, subject to the limitations provided in the Warrant Agreement, without charge except for any tax or other governmental charge imposed in connection therewith.

The Company and the Warrant Agent may deem and treat the registered holder(s) hereof as the absolute owner(s) of this Warrant Certificate (notwithstanding any notation of ownership or other writing hereon made by anyone), for the purpose of any exercise hereof, of any distribution to the holder(s) hereof, and for all other purposes, and neither the Company nor the Warrant Agent shall be affected by any notice to the contrary. Neither the Warrants nor this Warrant Certificate entitles any holder hereof to any rights of a stockholder of the Company.

BY

OXBORO MEDICAL, INC.

Matthe Ebellin

Its PRESIDENT

Attest:

Its SECRETARY

Robert & Haria

This Warrant Certificate shall not be valid unless countersigned by the Warrant Agent, as such term is used in the Warrant Agreement.

WITNESS the facsimile seal of the Company and the facsimile signatures of the Company's duly authorized officers.

Dated:

COUNTERSIGNED AND

REGISTERED:

WELLS FARGO BANK MINNESOTA,

NA

AS WARRANT AGENT

RY

Authorized Signature

TO: Oxboro Medical, Inc.

Wells Fargo Bank Minnesota, N.A., Warrant Agent

PURCHASE FORM

(To be executed by the Registered Holder in Order to Exercise Warrant Certificates)

The undersigned hereby irrevocably elects to exercise this Warrant, according to the terms and conditions hereof, and to purchase for cash Shares of Common Stock issuable upon exercise of this Warrant, and herewith makes payment of the exercise price \$\\$ thereof, and requests that certificates for such Shares be issued in the name of the undersigned or his assignee as indicated on the Assignment Form below.

(Name-Please Print) Please insert social security or other identifying number of (Address) registered holder of certificate Dated: (Signature)* * NOTICE-The signature(s) to the Purchase Form or the Assignment Form must correspond to the name as written upon the face of the Warrant Certificate in every particular without alteration or enlargement or any

change whatsoever.

ASSIGNMENT FORM

(To be Executed By the Registered Holder in Order to Transfer the Warrant)

FOR VALUE RECEIVED, the undersigned here represented by the attached Warrant Certificate unt	eby sells, assigns, and transfers its right to purchase	shares of Common Stock
· · · · · · · · · · · · · · · · · · ·	oostal zip code, of Assignee) ignee:) and does irrevocably constitute and rant Certificate on the records of the Company with full	
premises.		
Date:,		
Social Security number of Assignee	Signature(s)*	
		* NOTICE—The signature(s) to the Purchase Form or the Assignment Form must correspond to the name as written upon the face of the Warrant Certificate in every particular without alteration or enlargement or any change whatsoever.
Signatures Guaranteed:		
	le guarantor institution (banks, stockbrokers, savings an signature guarantee program) pursuant to S.E.C. Rule 1	

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PURCHASE FORM (To be executed by the Registered Holder in Order to Exercise Warrant Certificates)
ASSIGNMENT FORM (To be Executed By the Registered Holder in Order to Transfer the Warrant)

Lindquist & Vennum P.L.L.P. 4200 IDS Center 80 South Eighth Street Minneapolis, Minnesota 55402

August, 2000

Oxboro Medical, Inc. 13828 Lincoln Street NE Ham Lake. Minnesota 55304

Re: Registration of Incentive Warrants on Form S-3

Ladies and Gentlemen:

We have acted as counsel to Oxboro Medical, Inc., a Minnesota corporation (the "Company") in connection with the filing of the Registration Statement on Form S-3 (the "Registration Statement") under the Securities Act of 1933, as amended (the "Act") with respect to the registration of Warrants to purchase up to 417,794 shares of the Company's \$.01 par value Common Stock (the "Incentive Warrants") and an equal number of shares of the Company's \$.01 par value Common Stock underlying the Incentive Warrants (the "Shares"). Please be advised that as counsel to the Company, upon examination of such corporate documents and records as we have deemed necessary or advisable for the purposes of this opinion, it is our opinion that:

- **1.**The Company is a validly existing corporation in good standing under the laws of the State of Minnesota.
- 2. The Incentive Warrants are duly and validly authorized for issuance, and, when issued as described in the Registration Statement, will be validly issued, fully paid and nonassessable.
- The Shares to be issued by the Company pursuant to the exercise of the Incentive Warrants are duly and validly authorized for issuance. Upon proper exercise of the outstanding Incentive Warrants and payment for the underlying Shares, the Shares will be validly issued, fully paid and nonassessable Common Stock of the Company.

For the purposes of this opinion, we are assuming the proper execution of the Incentive Warrants and all certificates evidencing the Incentive Warrants, and that the appropriate certificates are duly filed and recorded in every jurisdiction in which such filing or recordation is required in accordance with the laws of such jurisdictions. We express no opinion as to the laws of any state or jurisdiction other than Minnesota.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement, and to the reference to our firm under the heading "Legal Opinions" in the Prospectus comprising a part of the Registration Statement.

Very truly yours,

Exhibit 23(b)

CONSENT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS

We have issued our report dated November 22, 1999 (except for note E, as to which the date is December 3, 1999) accompanying the financial statements of Oxboro Medical, Inc. (formerly Oxboro Medical International, Inc.) included in the Annual Report on Form 10-KSB for the year ended September 30, 1999 which is incorporated by reference in this Registration Statement. We consent to the incorporation by reference in the Registration Statement of the aforementioned report and to the use of our name as it appears under the caption "Experts."

/s/ GRANT THORNTON LLP

Minneapolis, Minnesota August 10, 2000

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CONSENT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS