July 17, 2008

Mail Stop 6010

John R. Barr
President and Chief Executive Officer
AGA Medical Holdings, Inc.
5050 Nathan Lane North
Plymouth, MN 55442

Re: AGA Medical Holdings, Inc.
Registration Statement on Form S-1
Filed June 20, 2008
File No. 333-151822

Dear Mr. Barr:

We have reviewed your filing and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

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

Prospectus Cover Page

1. We note your omission of substantial required disclosure from your filing, including nearly all exhibits and the information regarding your beneficial ownership. Please ensure that your offering schedule includes sufficient time for review and resolution of potentially significant additional comments after you file all required information. Also, please confirm that any preliminary prospectus you circulate will include all non-Rule 430A information. This includes the price range and related information based on a *bona fide* estimate of the public offering price within that range.

Graphics

2. We note from the disclosure at the bottom of your graphics that you have "filed for HDE designation in the United States" for the identified products. Rather than using a technical term that is defined only later in the document, please explain

what this means in concrete, everyday language, including whether the products are currently available in the United States.

3. Please tell us the reason for the last sentence on the inside front cover. If there is a risk of confusing your company or products with others, please tell us why this is not clarified in the prospectus summary.

Basis of Presentation, page ii

4. Your risk factors must follow your one-page prospectus cover or your prospectus summary. Although we do not object to the placement of the information on your table of contents page, other information should be disclosed in a more appropriate section of your document.

Industry Data, page ii

5. We note your disclosure about industry data. Regarding all data other than the Easton Associates data mentioned on page iii, please tell us whether all industry data you cite in your document is publicly available. Also tell us:
   - how you confirmed that the data reflects the most recent available information,
   - whether the industry reports were prepared for use in your registration statement
   - whether you paid for the compilation of the data, and
   - whether the authors of the data consented to your use of it in the registration statement.

   If you were affiliated with the preparation of the data, please ensure that your disclosure in the body of the prospectus clearly indicates the nature of all such affiliations.

Our Business, page 1

6. Please provide independent, objective support for the statements you make in the summary about your products and market position. For example, we note your statement that you are a "leading innovator and manufacturer of medical devices…," that your products "have been clinically shown to be safe and highly effective," that you are the "only manufacturer" with devices approved to close six different heart defects and you have the "leading market position in the United States and Europe."

7. If you elect to highlight product safety in your prospectus summary, please balance your summary with equally prominent disclosure of adverse events.

8. We note your financial disclosure at the end of the first paragraph. Please balance your disclosure about growing sales with your decreasing net income for the same period.

9. We note your disclosure in the first bullet point on page 1.

- Please provide us with independent objective support that there is a "growing body of evidence" that links PFO to certain types of strokes and migraines.

- You state that, if you can establish a successful outcome, you will immediately prepare a PMA application. This implies that it will be a short time until you can bring the product to market. Please briefly describe the length of time after such outcome and other hurdles that exist before you can bring such a product to market.

- Please revise your disclosure to explain what you mean when you say "[i]f the stopping rules are not achieved with 500 patients…"

10. Regarding your second and third bullet points on pages 1 and 2 where you state that you are going to file for CE Mark and apply to the FDA for your products, please briefly describe the length of time such file and application process may take and identify other hurdles before you can bring such a product to market.

11. We note your disclosure in the second bullet point on page 3. Please tell us how you calculated the reported closure rates from physicians. For example, tell us whether you relied on a statistically significant sample of physician reports.

Investment risks, page 4

12. We note that you present your risks in one, long, complex paragraph, while you disclose your advantages in separately explained bullet points. Please disclose risks with equal prominence as your advantages.

Preferred Stock Purchase Rights, page 5

13. Please briefly highlight the purpose of the rights plan.

Summary Financial Data, page 7

14. In the discussion on page 7 you indicate that the "as adjusted" balance sheet reflects the conversion of the Class B common stock into common stock at the consummation of this offering. We note that there is no discussion of the Class B common stock in the table of adjustments on page 8 and no Class B common

shares are issued and outstanding on your balance sheets. Please tell us why the as adjusted balance sheet data reflects the conversion of the Class B common stock.

15. We note on pages 59-60 that Consolidated EBITDA is a measure used to monitor your compliance with debt covenants. If EBIDTA is included on pages 8 and 9 in response to material debt covenants tell us the specific debt agreements that include these covenants. In addition, the discussion of this measure should be moved to the liquidity section of MD&A and you should provide all the disclosures required by Question 10 included in Frequently Asked Questions Regarding the Use of Non-GAAP Financial Measures dated June 13, 2003.

Risk Factors, page 10

16. Please revise the last sentence of the first paragraph to remove the implication that you have omitted material risks.

17. With a view toward addition of an appropriate risk factor, please tell us about the disputes with distributors that you mention on page 46 as the primary reason for increased doubtful accounts.

In certain international markets, page 16

18. With a view toward disclosure, please tell us the portion of your business derived from the distributor terminated in April 2008.

We may fail to comply, page 22

19. Please clarify when you submitted to the FDA your letter requesting that the October 2006 recall be closed. Also disclose any material reasons for the any delay in closing.

Modifications, page 23

20. If you have made modifications that you have not submitted for FDA review, please highlight the extent of those changes.

Risks Related to our Debt, page 26

21. Please file the documents governing the debt that generates these risks.

Use of Proceeds, page 33

22. We note that you have identified affiliates of Deutsche Bank Securities Inc and Lehman Brothers as underwriters who will receive a portion of your net proceeds from the offering. As it appears affiliates of your lenders Bank of America,

Wachovia and Citicorp are listed as underwriters, it is unclear why you limit your disclosure here to the other two underwriters. Are they the only underwriters who are parties to the Tranche B term loan facility?

23. Please identify those affiliates who will be receiving proceeds from the offering, and clearly indicate how they are affiliated with you. Also quantify the amount to be paid to each affiliate.

24. We note your disclosure in the penultimate full paragraph on page F-23 regarding redemption of your Series A preferred stock upon an initial public offering. With a view towards disclosure, please tell us how the Series A preferred stock can convert to common stock prior to an initial public offering and how this offering will affect the redemption feature.

Capitalization – page 35

25. Please revise to remove the caption relating to cash, cash equivalents, and marketable securities from your presentation of capitalization.

26. Please revise the capitalization table to separately disclose the effects of the conversion of the Series A preferred stock and Class A and B common stock and the estimated net proceeds of the offering. The conversion of the stock should be included in a "pro forma" column. The estimated net proceeds from the offering should be in a separate "pro forma as adjusted" column.

Selected Financial Data, page 39

27. We note on page 34 that you have paid cash dividends. Please revise the data to present the information about cash dividends required by Instruction 2 to Item 301 of Regulation S-K.

Management's Discussion and Analysis, starting on page 41

Litigation Settlement, page 44

28. We note that you capitalized $1 million of your patent infringement settlement payment. Please tell us the reason that this amount was capitalized and the basis for your treatment.

In-Process Research and Development, page 44

29. Please provide the following disclosures for the significant in-process research and development charge from the July 2005 reorganization:

- The nature of the projects acquired with a summary of values assigned to each significant project,

- The stage of completion of the projects at the acquisition date,
- The nature and timing of the remaining efforts for completion of the projects,
- The estimated costs to complete the projects,
- The anticipated completion date and when you expect to begin benefiting from the in-process research and development,
- An explanation of material variations between projected results and actual results and how the failure to achieve projected results impacted your expected return on investment and future results.

Critical Accounting Policies

Stock-based Compensation, page 48

30. Once you have a pricing range, please provide the following disclosures in MD&A:

    - The aggregate intrinsic value of all outstanding options based on the midpoint of the estimated IPO price range; and,

    - A discussion of each significant factor contributing to any difference between the estimated fair value as of the date of grant and the estimated IPO price (or pricing range) for options granted during the twelve months prior to the date of the most recent balance sheet.

Results of Operations, page 51-55

31. We note that throughout MD&A you cite a number of reasons for changes in net sales, costs of goods sold, selling, general and administrative expenses, and research and development expenses. When you cite more than one factor in explaining a significant change in a financial statement item, please quantify and discuss each of the factors that contributed to the significant changes. For example, please quantify the effect of changes in sales volume or average selling prices, new products, etc. on your net sales.

32. With a view toward disclosure, please tell us the effect of currency values on your prices. Quantify where possible.

Liquidity, page 56

33. Please clarify whether your reference to “foreseeable future” refers to your short-term or long-term (greater than 12 months) liquidity.

Contractual Commitments, page 60

34. Regulation S-K Item 303(a)(5) requires this table to be presented as of year end. Although you may also show changes since year end by footnote, another table or otherwise, the table required by Item 303(a)(5) must be presented.

Business, page 63

35. Please provide the five-year development history required by Regulation S-K Item 101(a). For example, if your 2005 reorganization resulted in change of control, please say so directly and explain how the control changed. We also note your disclosure on page 52 under "Selling, general and administrative" that appears to indicate that you established your United States direct sales force in 2007.

Fraud and Abuse, page 91

36. We note the last sentence of this section where you indicate that you cannot assure investors that you will be able to comply with the fraud and abuse laws and regulations. Please clarify the reason for the doubt, particularly given your disclosure on page 21 that you are in compliance.

Management, page 95

37. Please tell us why the Vice President of World Wide Sales and Marketing identified on your website is not identified in this table as an executive officer.

Director Compensation, page 101

38. Please provide us your analysis of why it is appropriate to exclude from the Director Compensation Table the $120,000 annual retainer paid to Mr. Thompson's law firm as part of your agreement with him. Cite all authority on which you rely.

Compensation Discussion and Analysis, page 102

Compensation Determination Process, page 103

39. Please reconcile your disclosure that you have did not benchmark compensation before 2008 with your statements that the committee considered compensation at other private and public companies in which WCAS has significant equity interests. If you did benchmark, please identify the component companies.

40. Please clarify the role of the executive search firm mentioned at the top of page 104. Based on your disclosure under "Base Salaries," it appears that the firm might have provided you information that you used to benchmark compensation.

If so, please provide the information regarding the benchmarking required by Regulation S-K Item 402(b).

Base Salary, page 104

41. Please describe the reasons for the 5% increase in December 2006 for Mr. Barr and the 4.92% increase in January 2008 for Mr. Gougeon, Mr. Barr and Ms. Makes.

42. Please disclose the results of the April 2008 evaluation and benchmarking mentioned in the first full paragraph on page 104.

Annual Cash Incentive Payments, page 105

43. We note that you have not provided a quantitative discussion of the necessary targets to be achieved in order for your executive officers to earn their discretionary annual bonuses. Provide such disclosure of the targets or alternatively tell us why you believe that disclosure of such information would result in competitive harm such that the information could be excluded under Instruction 4 to Item 402(b).

44. Please describe the specific reasons for the differences among the bonus percentages mentioned at the bottom of page 106.

45. Please disclose the reasons for Mr. Barr's 2006 retention bonus as described in note 3 to the Summary Compensation Table and why the payments were made in 2006 and 2008, but not 2007.

Long Term Equity Incentives, page 107

46. Please explain how you determined the amounts of stock options to be granted to your executive officers. Please describe the elements of individual performance and contribution that are taken into account in granting these options. Your revised disclosure also should clarify the reasons for the relative size of the grants and different vesting schedules among the officers.

Certain Relationships and Related Transactions, page 119

47. Please disclose the rate at which the securities issued to related parties will be converted into common stock in connection with this offering.

48. Given your disclosure on page 34, please tell us why this section does not indicate the amount of the dividend payments to affiliates.

49. Please disclose in this section the redemption mentioned at the bottom of page 41 and on pages 58 and F-24.

50. With a view toward disclosure in an appropriate section of your document, please tell us about the royalty agreements mentioned on pages 60 and F-27. Include the parties to the agreements and their relationship to you, the reason you agreed to the royalty payments, and whether the royalty rates are fixed or change in a manner that represents a known trend affecting your operating results.

Loans to Stockholders, page 121

51. Please clarify how amounts were due in connection with the July 2005 reorganization to the related parties you mention in this section.

Review, Approval or Ratification of Transactions with Related Parties, page 121

52. Please provide the disclosure requested by Item 404(b)(1)(ii) as it is unclear what you mean when you state "in accordance with applicable law governing the approval of such transactions." Also disclose when it is "necessary" to obtain "formal audit committee review," and distinguish those circumstances from when you require audit committee ratification.

Principal and Selling Stockholders, page 122

53. We note your disclosure in footnote 1. Please identify all individuals with beneficial ownership over the shares represented in the table. For example, please identify those individuals with dispositive power over the shares where Welsh Carson holds the voting control.

54. With a view toward disclosure, please tell us when the selling stockholders acquired their shares being offered and the consideration paid.

55. The table must include all shares beneficially owned as determined in accordance with Rule 13d-3, even if beneficial ownership is disclaimed. Please revise footnote 3 accordingly.

56. We note your disclosure in the last paragraph on page 123. Please identify which selling stockholders are broker-dealers and which are affiliates of broker-dealers.

57. Please explain how the over-allotment shares will be allocated among selling shareholders, including an explanation of how a partial exercise of the over-allotment option will be allocated.

Authorized Capital, page 124

58. Your disclosure may not be qualified by reference to statutes. Please revise to last sentence of this section to remove any implication to the contrary.

Underwriting, page 137

59. Please provide more specific information regarding the investment banking and advisory services mentioned in the first sentence of the penultimate full paragraph on page 141.

60. Please tell us, in light of the underwriters' relationships as affiliates of your lenders under your credit facility, whether you will be using a Qualified Independent Underwriter.

Financial Statements

61. Please update the financial statements when required by Rule 3-12 of Regulation S-X.

Consolidated Statements of Stockholders' Deficit, page F-6

62. Please tell us how you determined the allocation of the amounts related to dividends between additional paid-in capital and accumulated earnings (deficit) each period.

Note 2. 2005 Reorganization and Business Combination, page F-9

63. Please provide an analysis of how you applied the guidance in EITF 88-16 for the 2005 reorganization and business combination. For example, if you applied the guidance in Section 1 of EITF 88-16 for the partial change in accounting basis please indicate how you met the conditions in Section 1.a and 1.b., including how the new investors obtained unilateral control of AGA Medical Holdings. In addition, clearly disclose how you determined the amount of the deemed dividend of $63.5 million.

64. Please revise to disclose the composition of other current assets, which comprises over 30% of the fair value of acquired assets.

65. Please revise to disclose the nature of the intangible assets acquired, how these amounts were determined and their related useful lives. If this includes the developed technology included in Note 5 disclose the nature of the technology acquired and how it was valued.

66. We note the discussion on page F-10 that the purchase price was allocated to acquired assets and liabilities based on management's determination utilizing a valuation report provided by an independent third-party appraisal firm. Please tell us about the nature and extent of the third party's involvement in your decision-making process associated with the referenced valuation. While management may elect to take full responsibility for valuing the acquired assets and liabilities, if you choose to continue to refer to the independent third-party appraisal firm in

any capacity, please revise the filing to name the independent valuation expert and include its consent as an exhibit. Refer to Rule 436 and Item 601(b)(23) of Regulation S-K.

Note 3. Unaudited Pro Forma Stockholders' Deficit, page F-11

67. Please tell us about the amounts in the pro forma stockholders' Deficit column on page F-4 related to the Series A preferred stock and Class A common stock since there are no shares outstanding on a pro forma basis and why these amounts will not convert into common stock at the time of the offering.

Note 3. Revenue Recognition, page F-15

68. Please tell us whether you revenue recognition policy is the same for all of your products, including accessories, delivery systems and the other products discussed on pages 71 through 76.

69. We note on page 46 that for some customers your products are held on consignment at that customer's location. Please expand to disclose your accounting policy for revenue recognition on products held on consignment.

70. Please tell us whether you offer pricing adjustments on sales to international distributors such as price concessions or price protection and, if so, how this impacts your revenue recognition policy.

Note 4. Acquisitions, page F-18

71. You describe the August 2006 acquisition as the purchase of distribution rights. However, your allocation of the purchase price includes inventory, property, intangible assets and goodwill. Please revise to clarify whether you acquired a business or assets and how you made that determination. In addition, clarify how you are accounting for the payments to the former owners if certain revenue goals are achieved.

72. We note the discussion on page F-19 that the fair value of the identifiable intangible assets, inventory and property and equipment were determined by management utilizing a valuation report provided by an independent third-party appraisal firm. Please tell us about the nature and extent of the third party's involvement in your decision-making process associated with the referenced valuation. While management may elect to take full responsibility for valuing the acquired assets and liabilities, if you choose to continue to refer to the independent third-party appraisal firm in any capacity, please revise the filing to name the independent valuation expert and include its consent as an exhibit. Refer to Rule 436 and Item 601(b)(23) of Regulation S-K.

73. Please clarify your accounting for the termination and transition agreement with the Spanish distributor discussed on page F-20.

Note 7. Capital Stock, page F-23

74. Please revise to disclose the specific operating milestones that result in adjustments to the conversion price of the Series A preferred stock.

Note 8. Income Taxes, page F-24

75. Please revise the table at the top of page F-25 to present separately the federal, state and foreign components of deferred taxes, similar to the presentation for current taxes.

Note 12. Stock Option Plan, page F-30

76. Please provide us with a schedule showing in chronological order, the date of grant, optionee, number of options granted, exercise price and the fair value of the underlying shares of common stock for the options issued during the last 12 months. Please indicate the compensation recorded for each of these issuances and reconcile to the amounts recorded in the financial statements.

77. Describe to us the objective evidence and analysis which supports your determination of the fair value at each grant and stock issuance date. Highlight any transactions with unrelated parties believed by management to be particularly evident of an objective fair value per share determination. Also, provide us with a chronological bridge of management's fair value per share determinations to the current estimated IPO price per share. Please indicate when discussions were initiated with your underwriter(s) about possible offering price ranges.

78. Please note that we are deferring any final evaluation of stock compensation until the estimated offering price is specified, and we may have further comments in that regard when you file the amendment containing that information.

Note 13. Investment, page F-31

79. Disclose your policy for accounting for the investment in the equity of Ample Medical Inc. In addition, tell us where the equity investment has been recorded in your financial statements. Please tell us whether separate audited financial statements for Ample Medical are required under Rule 3-09 of Regulation S-X.

80. Please revise to disclose the percentage ownership of Ample resulting after the investment and conversion in January 2008.

Note 15. Geographic Information, page F-32

81. We note that International sales are significant each period and on page 2 you indicate that you sell your devices in 101 countries, and that you are expanding your presence in China. We also note on page 94 that you have offices in the UK and Germany. Please tell us whether you have provided all the disclosures of major countries and geographic areas outside the US as required by paragraph 38a of SFAS 131.

Consents of Independent Registered Public Accounting Firms – Exhibits 23

82. Please include a currently dated and signed consent from your independent auditors prior to requesting effectiveness.

Expenses page II-1

83. We note your reference to additional insurance in the last paragraph on page 128. Please refer to the requirement to add a separate line item in this section per the instruction to Regulation S-K Item 511.

Item 15. Recent Sales of Unregistered Securities, page II-2

84. Please reconcile the disclosure here regarding your stock issuances and your disclosure in the Statement of Stockholders' Deficit. Also, please describe the exemption from registration relied upon for the issuances of the shares described in the table.

Exhibits

85. Given that your document currently includes Easton Associates' data, your filing should include the consent. It is not appropriate to indicate that the consent will be filed by amendment.

86. Please file your agreement with Dr. Amplatz mentioned on page 16.

Signatures

87. Please provide the date of the signatures.

As appropriate, please amend your registration statement in response to these comments. You may wish to provide us with marked copies of the amendment to expedite our review. Please furnish a cover letter with your amendment that keys your responses to our comments and provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your amendment and responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes all information required under the Securities Act of 1933 and that they have provided all information investors require for an informed investment decision. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event the company requests acceleration of the effective date of the pending registration statement, it should furnish a letter, at the time of such request, acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;

- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and

- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

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

We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. We will act on the request and, pursuant to delegated authority, grant acceleration of the effective date.

We direct your attention to Rules 460 and 461 regarding requesting acceleration of a registration statement. Please allow adequate time after the filing of any amendment for further review before submitting a request for acceleration. Please provide this request at least two business days in advance of the requested effective date.

You may contact Jeanne Bennett at (202) 551-3606 or in her absence, Brian Cascio at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. Please contact Jay Mumford at (202) 551-3637 or me at (202) 551-3617 with any other questions.

Sincerely,

Russell Mancuso
Branch Chief

cc (via fax): John B. Tehan, Esq.
Kenneth B. Wallach, Esq.