CRITICARE SYSTEMS INC /DE/ Form SC 13D/A January 31, 2006

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

SCHEDULE 13D

Under the Securities Exchange Act of 1934 (Amendment No. 2)*

Criticare Systems, Inc.

(Name of Issuer)

Common Stock, \$.04 par value

(Title of Class of Securities)

226901106

(CUSIP Number)

Jeffrey T. Barnes 222 Berkeley St. Boston, MA 02116 (617) 357-7474

(Name Address and Talenhone Number of Person Authorized to Receive Notices and

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

December 12, 2005

(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of sections 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box. []

NOTE: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See ss.240.13d-7 for other parties to whom copies are to be sent.

*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

Item 1. Security and Issuer.

This statement relates to the Common Stock, \$.04 par value (the "Common Stock") of Criticare Systems, Inc. (the "Issuer") having its principal executive office at 20925 Crossroads Circle, Waukesha, WI 53186

Item 2. Identity and Background.

- (a) This Statement is being filed on behalf of: (i) Oxford Bioscience Partners III L.P. ("OBP"), a Delaware limited partnership; (ii) Oxford Bioscience Partners (Bermuda) III Limited Partnership ("Bermuda"), a Bermuda limited partnership; (iii) OBP Management (Bermuda) III Limited Partnership, a Bermuda limited partnership, as the general partner of Bermuda; (iv) Oxford Bioscience Partners (Adjunct) III L.P. ("Adjunct"), a Delaware limited partnership; (v) OBP Management III L.P., a Delaware limited partnership, as the general partner of OBP and Adjunct; (vi) mRNA Fund L.P. ("mRNA"), a Delaware limited partnership, as the general partner of mRNA (viii) Jonathan J. Fleming; (ix) Alan G. Walton; and (x) Jeffrey T. Barnes (collectively, all of the entities and individuals above listed, the "Reporting Persons").
- (b) The address for all Reporting Persons other than Alan G. Walton is 222 Berkeley St., Boston, MA 02116

The address for Alan G. Walton is 315 Post Road West, Westport, CT 06880.

- (c) No changes have occurred since Amendment No. 1 relating to the Reporting Persons filed on March 9, 2001 (the "Filing").
- (d) No changes with respect to the Reporting Persons have occurred since the Filing.
- (e) No changes with respect to the Reporting Persons have occurred since the Filing.
- (f) No changes with respect to the Reporting Persons have occurred since the Filing.

Item 3. Source and Amount of Funds or Other Consideration.

Not applicable.

Item 4. Purpose of Transaction.

Not applicable.

Item 5. Interest in Securities of the Issuer.

(a) Not applicable.

- (b) Not applicable.
- (c) Not applicable.
- (d) Not applicable.
- (e) As of December 12, 2005, all of the Reporting Persons have ceased to own beneficially more than five percent of the outstanding Common Stock.
- Item 6. Contracts, Arrangements, Undertakings or Relationships with Respect to Securities of the Issuer.

Not applicable.

Item 7. Material to be Filed as Exhibits.

Exhibit 1 - Agreement regarding filing of joint Schedule 13D.

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SIGNATURE

After reasonable inquiry and to the best of his, her or its knowledge and belief, each of the undersigned certifies that the information set forth in this statement is true, complete and correct. We also hereby agree to file this statement jointly pursuant to the agreement set forth as Exhibit 1.

Dated: January 3, 2006

OXFORD BIOSCIENCE PARTNERS III L.P.

By: OBP Management III L.P., its general partner

By: /s/ Jonathan J. Fleming Jonathan J. Fleming General Partner

OXFORD BIOSCIENCE PARTNERS
(BERMUDA) III LIMITED PARTNERSHIP

By: OBP Management (Bermuda) III Limited Partnership, its general partner

By: /s/ Jonathan J. Fleming Jonathan J. Fleming General Partner

OBP MANAGEMENT (BERMUDA) III LIMITED PARTNERSHIP

By: /s/ Jonathan J. Fleming Jonathan J. Fleming General Partner

OXFORD BIOSCIENCE PARTNERS (ADJUNCT) III L.P.

By: OBP Management III L.P., its general partner

By: /s/ Jonathan J. Fleming Jonathan J. Fleming General Partner

OBP MANAGEMENT III L.P.

By: /s/ Jonathan J. Fleming Jonathan J. Fleming General Partner

MRNA Fund L.P.

By: MRNA Partners L.P., its general partner

By: /s/ Jonathan J. Fleming Jonathan J. Fleming General Partner

MRNA Partners L.P.

By: /s/ Jonathan J. Fleming Jonathan J. Fleming General Partner

/s/ Jonathan J. Fleming
Jonathan J. Fleming

/s/ Alan G. Walton Alan G. Walton

/s/ Jeffrey T. Barnes Jeffrey T. Barnes

EXHIBIT 1

AGREEMENT

Pursuant to Rule 13-d1(k) (1) under the Securities Exchange Act of 1934, the undersigned hereby agree that only one statement containing the information required by Schedule 13G need be filed with respect to the ownership by each of the undersigned of shares of Common Stock of Criticare Systems, Inc.

Dated: January 3, 2006

OXFORD BIOSCIENCE PARTNERS III L.P.

By: OBP Management III L.P., its general partner

By: /s/ Jonathan J. Fleming Jonathan J. Fleming General Partner

OXFORD BIOSCIENCE PARTNERS
(BERMUDA) III LIMITED PARTNERSHIP

By: OBP Management (Bermuda) III Limited Partnership, its general partner

By: /s/ Jonathan J. Fleming Jonathan J. Fleming General Partner

OBP MANAGEMENT (BERMUDA) III LIMITED PARTNERSHIP

By: /s/ Jonathan J. Fleming Jonathan J. Fleming General Partner

OXFORD BIOSCIENCE PARTNERS (ADJUNCT) III L.P.

By: OBP Management III L.P., its general partner

By: /s/ Jonathan J. Fleming Jonathan J. Fleming General Partner

OBP MANAGEMENT III L.P.

By: /s/ Jonathan J. Fleming Jonathan J. Fleming General Partner

MRNA Fund L.P.

By: MRNA Partners L.P., its general partner

By: /s/ Jonathan J. Fleming Jonathan J. Fleming General Partner

MRNA Partners L.P.

By: /s/ Jonathan J. Fleming

Jonathan J. Fleming General Partner

/s/ Jonathan J. Fleming Jonathan J. Fleming

/s/ Alan G. Walton Alan G. Walton

/s/ Jeffrey T. Barnes
Jeffrey T. Barnes