DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration
9200 Corporate Boulevard
Rockville MD 20850

8 JAN 2 5 2001 JAN 30 P1:27

Mr. Steve Kay
Global QA/RA Manager
GE Marquette Medical Systems, Inc.
8200 West Tower Avenue
Milwaukee, Wisconsin 53223

Re: Reclassification Order:
Docket No. 97P-0350
Home Uterine Activity Monitor, Corometrics Model 770 Home Uterine Activity Monitoring System

Dear Mr. Kay:

The Center for Devices and Radiological Health (CDRH) of the Food and Drug Administration (FDA) has completed its review of your petition for reclassification of the Corometrics Model 770 Home Uterine Activity Monitoring (HUAM) system that is intended for use in women with a previous preterm delivery to aid in the detection of preterm labor (PTL). FDA concludes that this device and substantially equivalent devices of this generic type, should be reclassified from class III into class II. This order, therefore, reclassifies the Corometrics Model 770 HUAM system, and substantially equivalent devices of this generic type into class II, under the generic name Home Uterine Activity Monitors, effective immediately. This order also identifies the special control applicable to the device as the FDA guidance document.

FDA identifies this generic type of device, the subject of this reclassification, as follows:

1. A HUAM is a device intended for use in women with a previous preterm delivery to aid in the detection of preterm labor.

2. The HUAM is an electronic system for at-home antepartum measurement of uterine contractions, data transmission by telephone to a clinical setting, and for data receive/display of the uterine contraction data at the clinic. The HUAM system comprises a tocotransducer, an at-home recorder, a modem, and a data receive/process/display computer/monitor.

In accordance with section 513(f)(1) of the act (21 U.S.C. 360c(f)(1)), devices that were not in commercial distribution prior to May 28, 1976 (the date of enactment of the Medical Device Amendments of 1976 (the amendments)), generally referred to as postamendments devices, are classified automatically by statute into class III without any FDA rulemaking process. Those devices remain in class III and require premarket approval, unless and until: (1) the device is reclassified into class I or II; (2) FDA issues an order classifying the device into class I or II in accordance with new section 513(f)(2) of the act (21 U.S.C. 360c(f)(2)), as amended by the Food and Drug Administration Modernization Act of 1997 (FDAMA); or (3) FDA issues an order finding the device to be substantially equivalent, in accordance with section 513(i) of the act (21 U.S.C. 360c(i)), to a predicate device that does not require premarket approval. The agency determines whether new devices are substantially equivalent to previously marketed devices by means of premarket notification procedures in section 510(k) of the act (21 U.S.C. 360(k)) and Part 807 of the regulations (21 CFR Part 807).

As you know, on August 15, 1997, FDA filed your petition requesting reclassification of Corometrics Model 770 HUAM system from class III into class II. The petition was submitted under section 513(f)(2) of the act, now section 513(f)(3) of the act, as amended by the FDAMA, and 21 CFR §860.134 of the agency's regulations.

97P-0350

PAV1

In accordance with section 513(f)(1) of the act, the HUAM was automatically classified into class III because the HUAM was not within a type of device which was introduced or delivered for introduction into interstate commerce for commercial distribution before May 28, 1976, and had not been found substantially equivalent to a device placed in commercial distribution after May 28, 1976, which was subsequently reclassified into class II or class I. In order to reclassify the HUAM intended for use in women with a previous preterm delivery to aid in the detection of PTL into class II, it is necessary that the proposed class have sufficient regulatory controls to provide reasonable assurance of safety and effectiveness of the device for its intended use.

Pursuant to 21 CFR §860.125 and §860.134, FDA consulted with the Obstetric and Gynecologic Devices Panel (the Panel). The Panel unanimously recommended that the HUAM for use in women with a previous preterm delivery to aid in the detection of PTL be reclassified from class III into class II because the Panel believes that special controls will provide reasonable assurance of the safety and effectiveness of the device. This recommendation was based on the information and data contained in the reclassification petition, on the summary and analysis of the data as set forth in the petition, on information presented during the open public hearing and open committee discussions of the meeting held on October 7, 1997, and on the Panel member's own personal knowledge of, and clinical experience with, the device.

The report and recommendation of the Panel were published in the Federal Register of July 30, 1999, 64 FR 41435 (enclosed) and interested persons were invited to comment by November 26, 1999, (extended date). FDA received 5 comments in response to the notice of panel recommendation. The comments expressed concern about the several aspects of reclassification of the device and associated special controls (see the attached summary of comments and responses).

FDA agrees with the Panel's recommendation to reclassify the HUAM from class III into class II with FDA's guidance document identified as the special control. This decision is based on the administrative record which consists of the reclassification petition, the transcript and minutes of the October 7, 1997, meeting of the Panel, and all other information identified in this letter.

After review of the information submitted in the petition and consultation with the Panel regarding the reclassification petition, FDA has determined that the HUAM intended for use in women with a previous preterm delivery to aid in the detection of preterm labor as described and identified herein can be reclassified from class III into class II with the establishment of special controls. FDA developed a guidance document on HUAMs that serves as the special control. The guidance document addresses the various risks that were identified by FDA and the Panel that are pertinent to use of HUAMs. In particular, the guidance document calls for establishment of a patient registry to provide a means for characterizing the nature of the patient population for which the device is actually used and to track information about the labor and delivery of women for whom the device is prescribed. FDA believes that using patient registries will provide outcome data that will contribute to appropriate use of the device. The remainder of the guidance document addresses the bench testing and clinical study validation of the safety, performance, and effectiveness of the device, as well as labeling to describe the device's capabilities and discourage off-label use. FDA believes that class II with special controls provide reasonable assurance of the safety and effectiveness of the device.

FDA has identified the following risks associated with the use of the device: electrical shock and/or injury, skin irritation and sensitization, unnecessary evaluation and treatment, disabilities and psychological issues, and other risks from use in unproved patient populations. The potential risk of electrical shock is well understood, and can be mitigated by appropriate system design such as sufficient electrical isolation or other safety measures in accordance with applicable consensus standards as addressed by the guidance document. The risk of skin irritation and sensitization can be lessened, if it occurs, by a consensus standard for material safety as addressed by the guidance

confirmed retrospectively by the preterm delivery. To the extent possible, labeling can address appropriate use of the device and the adequacy of the design may be demonstrated with bench testing as addressed by the guidance document. Physical disabilities and psychological burdens may result from the clinical management of women diagnosed with PTL. Nonetheless, high risk pregnancy is often psychologically debilitating to the patient, and tocolytics may be prescribed for unmonitored women as well. The labeling, as prescribed by the guidance document, can address appropriate use of the device. This reclassification order as it applies to your HUAM is only for the following indication for use: women with a clinical history of previous preterm birth. As described in the special controls guidance document, you may not label or promote this monitor for any other indications for use. The patient registry data will be used to enhance the requirements outlined in the guidance document, resulting in further refinement of appropriate use of the device.

The device is subject to the general control sections of the act, and any special controls (guidance document) identified under section 513(a)(1)(B) of the act (21 U.S.C. 360c(a)(1)(B)), including any performance standards promulgated under section 514 of the act (21 U.S.C. 360d). Thus, persons who intend to market this device must submit to FDA a premarket notification submission containing information on the HUAM they intend to market prior to marketing the device.

A notice announcing this reclassification order will be published in the Federal Register. A copy of this order and supporting documentation are on file in the Dockets Management Branch (HFA-305), Food and Drug Administration, 5630 Fishers Lane, Room 1061, Rockville, MD 2085 2 and are available for inspection between 9 a.m. and 4 p.m., Monday through Friday.

If you have any questions concerning this reclassification order, please contact Mr. Colin M. Pollard, at 301-594-1180.

Sincerely yours,

Daniel G. Schultz, M.D.
Deputy Director, Clinical
and Review Policy
Office of Device Evaluation
Center for Devices and
Radiological Health

Enclosures
FR Notice (64 FR 41435)
Summary Comments and Responses

written statements may be submitted for the record. Members of the public also may submit written statements for distribution to the MCSWG membership and inclusion in the public record without presenting oral statements. Such written statements should be sent to the MCSWG Executive Director, as shown above, by mail or fax at least five business days before the meeting.

Minutes of all public meetings and other documents made available to the MCSWG will be available for public inspection and copying at both the DOL and DHHS. At DHHS, these documents will be available at the MCSWG Executive Director's Office, Office of Child Support Enforcement (OCSE), Administration for Children and Families, U.S. Department of Health and Human Services, Aerospace Building, Fourth Floor—East, 370 L'Enfant Promenade, SW, Washington, DC from 8:30 a.m. to 5:30 p.m. Questions regarding the availability of documents from DHHS should be directed to Andrew J. Hagan, OCSE (telephone (202) 401–5375). This is not a toll-free number. Any written comments on the minutes should be directed to Ms. Samara Weinstein, Executive Director of the Working Groups, as shown above.

Dated: July 26, 1999.

David Gray Ross,

*Commissioner, Office of Child Support Enforcement.*

[FR Doc. 99–19602 Filed 7–29–99; 8:45 am]

BILLING CODE 4184–01–M

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Administration for Children and Families

### Reallotment of Funds for FY 1998 Low Income Home Energy Assistance Program (LIHEAP)

**AGENCY:** Office of Community Services, ACF, DHHS.

**ACTION:** Notice of determination concerning funds available for reallotment.

**SUMMARY:** In accordance with section 2607(b)(1) of the Omnibus Budget Reconciliation Act of 1981 (42 U.S.C. 8621 *et seq.*), as amended, a notice was published in the **Federal Register** on June 8, 1999 announcing the Secretary's preliminary determination that $2,381,450.52 in FY 1998 Low Income Home Energy Assistance Program (LIHEAP) funds may be available for reallotment to other LIHEAP grantees. We received a comment from one of the grantees with excess carryover funds indicating that a further review of records revealed that the amount of funds available for reallotment is reduced by $172,597. No additional comments were received. Therefore, the amount of funds available for reallotment is $2,208,853.52.

It has now been determined that the funds will be realloted to all LIHEAP grantees based on the normal allocation formula. No subgrantees or other entities may apply for these funds.

**FOR FURTHER INFORMATION CONTACT:** Janet Fox, Director, Division of Energy Assistance, Office of Community Services, 370 L'Enfant Promenade, SW, Washington, DC 20447; telephone number (202) 401–9351.

Dated: July 27, 1999.

Donald Sykes,

*Director, Office of Community Services.*

[FR Doc. 99–19601 Filed 7–29–99; 8:45 am]

BILLING CODE 4184–01–M

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Food and Drug Administration

**[Docket No. 97P–0350]**

### Obstetrics and Gynecology Devices; Reclassification of Home Uterine Activity Monitor

**AGENCY:** Food and Drug Administration, HHS.

**ACTION:** Notice of panel recommendation.

**SUMMARY:** The Food and Drug Administration (FDA) is announcing for public comment the recommendation of the Obstetrics and Gynecology Devices Panel (the Panel) to reclassify the home uterine activity monitor (HUAM) from class III to class II. The Panel made this recommendation after reviewing the reclassification petition submitted by Corometrics Medical Systems, Inc., and other publicly available information. FDA also is announcing for public comment its tentative findings on the Panel's recommendation. After considering any public comments on the Panel's recommendation and FDA's tentative findings, FDA will approve or deny the reclassification petition by order in the form of a letter to the petitioner. FDA's decision on the reclassification petition will be announced in the **Federal Register**. Elsewhere in this issue of the **Federal Register**, FDA is publishing a notice of availability of a guidance document that provides 510(k) applicants with specific directions regarding data and information that should be submitted to FDA in 510(k) submissions for HUAM's.

**DATES:** Written comments by October 28, 1999.

**ADDRESSES:** Submit written comments to the Dockets Management Branch (HFA–305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852.

**FOR FURTHER INFORMATION CONTACT:** Colin M. Pollard, Center for Devices and Radiological Health (HFZ–470), Food and Drug Administration, 9200 Corporate Blvd., Rockville, MD 20850, 301–594–1180.

**SUPPLEMENTARY INFORMATION:**

#### I. Background (Regulatory Authorities)

The Federal Food, Drug, and Cosmetic Act (the act) (21 U.S.C. 301 *et. seq.*), as amended by the Medical Device Amendments of 1976 (the 1976 amendments) (Public Law 94–295), the Safe Medical Devices Act of 1990 (the SMDA) (Public Law 101–629), and the Food and Drug Administration Modernization Act of 1997 (FDAMA) (Public Law 105–115), established a comprehensive system for the regulation of medical devices intended for human use. Section 513 of the act (21 U.S.C. 360c) established three categories (classes) of devices, depending on the regulatory controls needed to provide reasonable assurance of their safety and effectiveness. The three categories of devices are class I (general controls), class II (special controls), and class III (premarket approval).

Under section 513 of the act, devices that were in commercial distribution before May 28, 1976 (the date of enactment of the 1976 amendments), generally referred to as preamendments devices, are classified after FDA has: (1) Received a recommendation from a device classification panel (an FDA advisory committee); (2) published the panel's recommendation for comment, along with a proposed regulation classifying the device; and (3) published a final regulation classifying the device. FDA has classified most preamendments devices under these procedures.

Devices that were not in commercial distribution prior to May 28, 1976, generally referred to as postamendments devices, are classified automatically by statute (section 513(f) of the act) into class III without any FDA rulemaking process. Those devices remain in class III and require premarket approval, unless and until the device is reclassified into class I or II or FDA issues an order finding the device to be substantially equivalent, under section 513(i) of the act, to a predicate device that does not require premarket approval. The agency determines

whether new devices are substantially equivalent to previously offered devices by means of premarket notification procedures in section 510(k) of the act (21 U.S.C. 360(k)) and 21 CFR part 807 of the regulations.

A preamendments device that has been classified into class III may be marketed, by means of premarket notification procedures, without submission of a premarket approval application (PMA) until FDA issues a final regulation under section 515(b) of the act (21 U.S.C. 360e(b)) requiring premarket approval.

Reclassification of classified postamendments devices is governed by section 513(f)(2) of the act. This section provides that FDA may initiate the reclassification of a device classified into class III under section 513(f)(1) of the act, or the manufacturer or importer of a device may petition the Secretary of Health and Human Services (the Secretary) for the issuance of an order classifying the device in class I or class II. FDA's regulations in § 860.134 (21 CFR 860.134) set forth the procedures for the filing and review of a petition for reclassification of such class III devices. In order to change the classification of the device, it is necessary that the proposed new class have sufficient regulatory controls to provide reasonable assurance of the safety and effectiveness of the device for its intended use.

Under section 513(f)(2)(B)(i) of the act, the Secretary may, for good cause shown, refer a petition to a device classification panel. The Panel shall make a recommendation to the Secretary respecting approval or denial of the petition. Any such recommendation shall contain: (1) A summary of the reasons for the recommendation, (2) a summary of the data upon which the recommendation is based, and (3) an identification of the risks to health (if any) presented by the device with respect to which the petition was filed.

## II. Regulatory History of the Device

### *A. Preamendments Devices*

Before enactment of the 1976 amendments, tokodynamometers, integrated into electronic perinatal monitoring systems, were in commercial distribution. A tokodynamometer is a transducer and monitoring system used to make continuous external (abdominal) measurements of intrauterine pressure and provide strip chart tracings of the uterine contractions of a pregnant woman during labor. Preamendments perinatal monitors were marketed as systems for use in clinical settings, with different models for the office or hospital, and intended for clinical evaluation of the fetus and mother. In 1980, FDA classified these preamendments monitors (external uterine contraction monitor (21 CFR 884.2720) and perinatal monitoring system (21 CFR 884.2740) into class II.

### *B. Premarket Notifications*

Between 1984 and 1987, FDA reviewed 510(k)'s for several HUAM's and found these HUAM's to be substantially equivalent to tokodynamometers used in clinical settings. HUAM manufacturers were permitted to market these devices for use in "low risk at-term" pregnancies. However, FDA determined that use of the HUAM for "the early detection of preterm labor (PTL) in high risk patients" constituted a new intended use. For this new use, FDA determined that the HUAM was not substantially equivalent to any preamendments class I, class II, or class III device not subject to an approved PMA, or to any postamendments device that had been classified into class I or class II for the early detection of PTL. Accordingly, FDA advised HUAM manufacturers that the device was classified into class III under section 513(f)(1) of the act, and that it could not be placed in commercial distribution for early detection of PTL in high risk patients unless it was reclassified under section 513(f)(2), or subject to an approved PMA under section 515 of the act.

### *C. PMA Reviews and Related Issues*

Subsequent to 1987, several PMA's for HUAM's were submitted to FDA and referred to the Panel for its recommendations.

On May 26, 1988, the first PMA the Panel considered was the Tokos' Term Guard™ device. The Panel recommended that this PMA not be approved because the supporting data did not show the individual contribution the monitor made to the early detection of PTL, over and above that attributable to the regimen of daily patient contact (Ref. 1).

On March 6, 1989, the Panel reviewed a PMA submitted by Healthdyne, Inc., for its System 37™ HUAM and recommended that the PMA be found not approvable because the primary study endpoint (physician intervention) was considered too subjective and the study lacked a control group (Ref. 2).

On January 18 and April 4, 1990, the Panel reviewed a PMA submitted by Physiological Diagnostic Systems, Inc., for its Genesis™ HUAM. This PMA was supported by a randomized controlled clinical study that demonstrated the individual contribution of the monitor to the early detection of PTL, as evidenced by cervical dilation at the time of PTL diagnosis. These data, within the study, were compared with the standard care for high risk patients without monitoring. On the basis of this data, the Panel recommended approval of the Genesis™ HUAM for the early detection of PTL in only one high risk patient group (Refs. 3 and 4). Subsequently, on September 12, 1990, FDA approved a PMA for the Genesis™ HUAM. This HUAM is indicated for use, in conjunction with standard high risk care, for the daily at-home measurement of uterine activity in pregnancies ≥24 weeks gestation for women with a history of previous preterm birth. With the Genesis™ system, uterine activity is displayed at a remote location to aid in the early detection of PTL, as evidenced by cervical dilation at the time of PTL diagnosis (Ref. 5).

On June 11, 1990, the Panel reviewed a new PMA from Healthdyne for its System 37™ HUAM. Healthdyne submitted new data and claimed that the System 37™ would identify women, already known to be a high risk for PTL, who were at an even higher risk of preterm birth. The Panel recommended that this PMA not be approved because of inherent study design flaws. In particular, the outcome variable (incidence of preterm birth) had significant intra and interobserver variation, and the study entry criteria were biased (Ref. 6).

On April 29 and 30, 1993, the Panel reviewed a PMA for the DT 100–P HUAM manufactured by Advanced Medical Systems. This HUAM system was indicated for the early detection of PTL in women with twin gestations. The Panel reviewed the PMA and recommended that the PMA be found not approvable because all the key clinical data came from only one site and because significant engineering questions regarding the monitoring system were unanswered.

The Panel also considered several FDA prepared questions on the interpretation of clinical study findings supporting other PMA's under review. In addition, the Panel addressed certain issues relative to the existing draft guidance document entitled "Premarket Testing Guidelines for Home Uterine Activity Monitors" (March 31, 1993). Issues discussed included: (1) The use of a random sample of examiners to address intra and interobserver variance; (2) the use of a standard definition for the terms "preterm labor" and "standard of care for high risk patients"; (3) limiting study inclusions

to a minimum gestational age of 20 weeks; and (4) allowing the use of subgroup analysis, except for the purpose of making promotional claims. The Panel also noted the importance of blinding procedures for patients and investigators, but did not go so far as to identify it as a requirement.

During the April 1993 meeting, the Panel stressed that FDA should look at how the HUAM device is promoted and how often it is used for indications for which it is not approved in the context of postapproval studies or annual reporting (Ref. 7). Also, during this meeting, FDA informed the industry that in light of the many published studies on HUAM's, the devices were a good candidate for reclassification and invited them to petition FDA for a change in classification of the devices.

During the Panel meeting of September 2, 1994, FDA sought additional guidance regarding clinical review issues on HUAM PMA's. The Panel reconsidered whether cervical dilation at the time of PTL diagnosis should remain the primary clinical endpoint. Alternative endpoints were discussed and despite the difficulties and imperfections of using cervical dilation, the Panel concluded that this endpoint should remain an acceptable alternative for HUAM efficacy studies (Ref. 8).

During the Panel meeting of April 24, 1995 (Ref. 9), Caremark, Inc., presented the clinical efficacy study results for its First Activity® HUAM. The study included design elements specifically recommended and preferred by the Panel, including a sham control. When compared to standard clinical care for high risk patients, the study showed no added benefit when using an HUAM for either early PTL detection or reduced preterm births. These findings did not persuade the Panel to change its earlier recommendations regarding acceptable elements of study designs.

On September 29, 1995, FDA approved PMA's for Healthdyne's System 37™ and CareLink Corp.'s CareFone™ HUAM's, for the same indication as the Genesis™ HUAM; i.e., in conjunction with standard high risk care, the HUAM was approved for the daily at-home measurement of uterine activity in pregnancies, ≥24 weeks gestation, for women with a history of previous preterm birth. The uterine activity of these devices is also displayed at a remote location to aid in the early detection of PTL.

### *D. Reclassification Petition*

On August 15, 1997, FDA received a petition from Corometrics Medical Systems, Inc., for its Model 770 BMS HUAM system requesting FDA to reclassify the HUAM system from class III to class II under section 513(f)(2) of the act and § 860.134, based on information submitted in the petition (Ref. 10).

Consistent with the act and the regulation, FDA referred the petition to the Panel for its recommendation on the requested change in classification.

## III. Device Description

A home uterine activity monitor is an at-home monitoring system that consists of a tocotransducer and abdominal belt, an at-home recorder/memory system, a telephone data transmitter (at-home modem), and a separate data receiving, storage, and display system that is located, remote from the home, in a clinical setting (data receiving center). The device is intended to be used on women with a previous preterm delivery to aid in the detection of PTL.

At home, per instructions by the obstetrician, a pregnant woman secures the tocotransducer around her abdomen for a specified duration and frequency. Uterine muscular distention (tone) changes, indirectly detected by the tocotransducer, are recorded and stored in the recorder/memory. Either immediately after recording or at a later time, the uterine activity data is transmitted via the modem to the data receiving center for clinical evaluation.

The receiving center has a computerized system with specialized software to receive, store, and display the uterine activity data for clinical evaluation at the remote clinical site. Based on the evaluation of the uterine activity tracing, the patient is referred to her obstetrician for further followup to determine whether she has started PTL.

## IV. Recommendations of the Panel

In a public meeting on October 7, 1997, the Panel unanimously recommended that the HUAM be reclassified from class III to class II for use in early detection of PTL, as evidenced by cervical dilation at PTL diagnosis, for women with a previous history of preterm birth (Refs. 11 and 12). The Panel believed that class II with special controls of patient registries, bench testing, consensus standards, and clinical validation studies would provide reasonable assurance of the safety and effectiveness the device.

## V. Risks to Health

During its review and discussion of the proposed reclassification of the HUAM, the Panel identified certain risks to health they believed were associated with use of the HUAM. The risks were identified as : (1) Off-label use; (2) initiation of a cascade of interventions including bed rest, hospitalization, and medications; and (3) disabilities and psychological concerns, such as quality of life issues. The Panel had other concerns they believed were hazards to health. They identified the specific hazards as needless exposure to tocolytics and steroids resulting from detection of clinically meaningless contractions, alterations in quality of life from false positives, and inability to identify contractions because of a failure of the transducer to be sensitive and specific.

After considering the discussion by the Panel during the reclassification proceedings, reviewing the reclassification petition, medical device reports, and published literature, FDA identified the following risks it believed are associated with use of the HUAM when used in early detection of PTL, as evidenced by cervical dilation at PTL diagnosis, for women with a history of previous preterm birth:

### *A. Electric Shock and/or Injury*

HUAM's are electrically powered devices which can cause electrical shock to the patient or clinician, leading to injury or death. This potential risk is well understood, and it can be mitigated by appropriate system design such as sufficient electrical isolation and other safety measures in accordance with applicable consensus standards.

### *B. Skin Irritation and Sensitization*

HUAM's have accessories that make contact with the skin, namely, the tocotransducer and abdominal belt. Any material that comes in contact with the skin has the potential for causing skin irritation and sensitization. This risk can be lessened, if it occurs, by a consensus standard for material safety.

### *C. Unnecessary Evaluation and Treatment*

Unnecessary evaluation and treatment may result from an imprecise definition of PTL or failure of an HUAM to accurately depict uterine activity. Diagnosis of PTL is often difficult, and many times can only be confirmed retrospectively by the preterm delivery. Nonetheless, the consequences of preterm delivery can be devastating in terms of neonatal morbidity and mortality. There is a concern that the use of an HUAM system can cause unnecessary visits to the clinic which could, in turn, lead to over-diagnosis of PTL and unnecessary treatment with tocolytics for women who have increased uterine activity but are not destined for preterm delivery. Improper device design or a malfunctioning

device can also result in an apparent increase in uterine activity and unnecessary clinical visits, thereby leading to unnecessary treatment with tocolytic agents intended to stop or slow labor.

*D. Disabilities and Psychological Issues*

Physical disabilities and psychological burdens may result from the clinical management of women diagnosed with PTL. For example, the use of some tocolytic agents sometimes causes temporary or permanent injury to the mother. Moreover, the HUAM regimen coupled with a tocolysis regimen can significantly disrupt a woman's pregnancy and her quality of life. Nonetheless, it is noted that a high risk pregnancy is often psychologically debilitating to the patient, and tocolytics may be prescribed for unmonitored women as well.

*E. Other Risks From Use in Unproven Patient Populations*

HUAM's have only been approved for use on women who have had a previous preterm delivery. The overuse of HUAM's for other indications, i.e., PTL in the current pregnancy, multiple gestations, etc., were expressed concerns of the Panel. The clinical utility for these other indications has not been proven.

## VI. Benefits

HUAM's provide a benefit to high risk patients by helping to detect PTL at an early stage, as evidenced by cervical dilation, thereby allowing for early management of PTL. Early detection of PTL increases the likelihood of successful tocolysis, leading hopefully to the ultimate benefit of fewer preterm births and lower infant mortality and premature births. However, because this is only a monitoring device, FDA has required HUAM manufacturers to show that the devices provide contraction information that contributes to the diagnosis of PTL. Manufacturers are not required to show a reduction in the outcome measures because they are a result of successful intervention after diagnosis.

HUAM technology is well-established with a long history of safe use at home and in the clinical setting. HUAM device design does not vary substantially from manufacturer to manufacturer in terms of underlying technology and clinical performance. Specific design choices are not expected to affect the risk to the patient. Therefore, FDA believes that randomized controlled clinical studies intended to show early PTL detection are no longer necessary and that the special controls described in section IX of this document would provide reasonable assurance of the safety and effectiveness of the device.

## VII. Summary of Reasons for Recommendation

After reviewing the data and information contained in the petition and provided by FDA, and after consideration of the open discussions during the Panel meetings and the Panel members' personal knowledge of and clinical experience with the device, the Panel gave the following reasons in support of its recommendation to reclassify the generic type HUAM for use, in conjunction with standard high risk care, in the daily at-home measurement of uterine activity in pregnancies ≥24 weeks gestation for women with a history of previous preterm birth from class III into class II:

1. The Panel believes that general controls by themselves are not sufficient to provide reasonable assurance of safety and effectiveness.

2. The Panel believes that the HUAM should be reclassified into class II because special controls, in addition to general controls, provide reasonable assurance of the safety and effectiveness of the device, and there is sufficient information to establish special controls to provide such assurance.

## VIII. Summary of Data Upon Which the Panel Recommendation is Based

The Panel considered a large number of published clinical studies ranging in size, control, study population, and outcome measures (Ref. 10). Statistical analyses of various studies were also considered. The Panel believed that these studies, as an aggregate, established the effectiveness of HUAM's, and qualified their effectiveness as an adjunctive tool for monitoring high risk pregnancies. At least one study showed that when HUAM's are used in combination with daily nursing care, PTL can be detected earlier than it is detected by the standard clinical management of patients at high risk for PTL (Ref. 12). Other studies showed that when used without daily nursing contact, HUAM's detected PTL earlier (as evidenced by cervical dilation at the time of PTL diagnosis) than standard clinical care of a select patient populations (Refs. 5 and 14). On the other hand, some controlled studies showed that, for high risk populations, HUAM's do not contribute to PTL detection rate or a reduction in preterm deliveries when used with daily nursing contact (Refs. 15 and 16). Some studies evaluated HUAM's for managing pregnant women who were at risk for preterm birth for other reasons, e.g., multiple gestation and PTL in the current pregnancy (Refs. 5, 12, 13, 14, 15, and 16). The Panel did not evaluate the evidence for these indications.

Most of the risks associated with HUAM's identified by the Panel were indirect effects attributable to incorrect monitoring information or misinterpretation of monitoring information leading to misdiagnosis. The concern that the use of the device would result in an increase in the number of hospital visits and use of tocolytics was not borne out in the published literature. The potential risk of misdiagnosis is one that is generally mitigated by proper training, adequate labeling, and limited use of the device by the clinician.

Based on the available information, FDA believes that the special controls discussed in section IX of this document are capable of providing reasonable assurance of the safety and effectiveness of the HUAM with regard to the identified risks to health of this device.

## IX. Special Controls

In addition to general controls, FDA believes that the special controls (patient registries and guidance document) discussed in this section are adequate to control the risks to health described for this device. Elsewhere in this issue of the **Federal Register**, FDA is publishing a notice of availability of a guidance document entitled "Home Uterine Activity Monitors: Guidance for the Submission of 510k Premarket Notifications" that provides 510(k) applicants with specific directions regarding data and information that should be submitted to FDA in 510(k) submissions for HUAM's.

*A. Patient Registries*

The rationale for using patient registries is that it provides a means for characterizing the nature of the patient population for which the device is actually used and to track information about the labor and delivery of women for whom the device was prescribed. FDA believes that using patient registries, in a structured sampling format, will provide outcome data that will contribute to appropriate use of the device.

*B. Guidance Document (Home Uterine Activity Monitors: Guidance for the Submission of Premarket Notifications)*

This document incorporates: (1) The consensus standards from professional organizations to provide uniformity, (2) bench testing and validation study information to validate the effectiveness and performance of the device, and (3)

labeling to describe the device's capabilities and discourage off-label use.

1. Bench Testing

Bench testing can validate the ability of the HUAM to operate (independently or in combination with clinical validation studies) as intended, i.e., to collect, store, and transmit data. Bench testing can also address the risk of false positives and the resulting inappropriate management of the patient. Appropriately designed bench testing will ensure that uterine activity, and contractions in particular, are accurately measured and displayed by the device, thereby minimizing false positives associated with the device.

2. Consensus Standards

The International Electrotechnical Commission (IEC) standards 601-1 for medical electrical equipment and 601-1-2 for general safety identify the electrical safety and electromagnetic compatibility aspects for any type electrical device. Adherence to these standards can control the risks of electrical shock and/or injury to the patient and clinician. Copies of these standards may be obtained from IEC, AT3, Rue de Varembe, P.O. Box 131, Geneva, Switzerland, CH-1211. IEC also maintains a site on the world wide web at "http://www.iec.ch". Testing in accordance with any of a variety of material safety consensus standards, such as ISO-10993, Biological Evaluation of Medical Devices, Part 1: Evaluation and Testing, can minimize the risks of skin irritation and sensitization caused by the tocotransducer and abdominal belt. Copies of this and other material safety standards may be obtained from International Organization for Standardization, Case Postal, Geneva, Switzerland, CH-1121. ISO also maintains a site on the World Wide Web at "http://www.iso.org".

3. Clinical Validation Study

The rationale for using a clinical validation study is to address the risk of false positives and the resulting inappropriate management of the patient. The objective of this limited clinical validation study is to address the remaining performance issues of the device, namely, the recording and data transmission functions that cannot be addressed via bench testing. The system should be tested in a small clinical study, in its intended setting with actual subjects. The study endpoints should address the readability of the received tracings, i.e., are the contractions correctly perceived by the clinician. The outcome of a limited clinical validation study would address and possibly mitigate the risk of unnecessary evaluation and treatment of the patient.

4. Labeling Requirements

Labeling addresses the risk of use of the device in unproved patient populations. Diagnosis of PTL is often difficult, and many times can only be confirmed retrospectively by the actual preterm delivery. Yet, the consequences of preterm delivery can be devastating in terms of neonatal morbidity and mortality. An HUAM system that causes additional visits to a clinic could lead to over-diagnosis of PTL and unnecessary treatment with tocolytics for women who have increased uterine activity but are not destined for preterm delivery. Labeling should provide an accurate description of the device's capabilities and discourage the off-label use of the device and limit the perpetuation of false claims of the device's capabilities.

FDA believes labeling which describes the capabilities and limitations of the HUAM system device can lead to a more informed use of this technology by the clinician, thereby mitigating the risks of unnecessary evaluations and treatments, disabilities, and psychological issues.

## X. FDA's Tentative Findings

The Panel and FDA believe that the HUAM should be classified into class II because special controls, in addition to general controls, would provide reasonable assurance of the safety and effectiveness of the device, and there is sufficient information to established special controls to provide such assurance.

## XI. References

The following references have been placed on display in the Dockets Management Branch (address above) and may be seen by interested persons between 9 a.m. and 4 p.m., Monday through Friday:

1. Obstetrics and Gynecology Devices Panel Meeting, Summary Minutes, May 26, 1988.

2. Obstetrics and Gynecology Devices Panel Meeting, Summary Minutes, March 6, 1989.

3. Obstetrics and Gynecology Devices Panel Meeting, Summary Minutes, January 18, 1990.

4. Obstetrics and Gynecology Devices Panel Meeting, Summary Minutes, April 4, 1990.

5. Mou, S. M. et al., "Multicenter Randomized Clinical Trial of Home Uterine Activity Monitoring for Detection of Preterm Labor," *American Journal of Obstetrics and Gynecology*, 165(4)1:858-866, 1991.

6. Obstetrics and Gynecology Devices Panel Meeting, Summary Minutes, June 11, 1990.

7. Obstetrics and Gynecology Devices Panel Meeting, Summary Minutes, April 29 and 30, 1993.

8. Obstetrics and Gynecology Devices Panel Meeting, Summary Minutes, September 2, 1994.

9. Obstetrics and Gynecology Devices Panel Meeting, Summary Minutes, April 24, 1995.

10. Reclassification Petition Submitted by Corometrics Medical Systems, Inc., June 5, 1997.

11. Obstetrics and Gynecology Devices Panel Meeting, Transcript, October 7, 1997.

12. Hill, W. C. et al., "Home Uterine Activity Monitoring is Associated With a Reduction in Preterm Birth," *Obstetrics and Gynecology*, 76 (1 Supplement):13s-18s, 1990.

13. Dyson, D. C. et al., "Prevention of Preterm Birth in High Risk Patients: The Role of Education and Provider Contact versus Home Monitoring," *American Journal of Obstertics and Gynecology*, 164(3):756-762, 1991.

14. Wapner, R. J. et al., "A Randomized Multicenter Trial Assessing a Home Uterine Activity Monitoring Device Used in the Absence of Daily Nursing Contact," *American Journal of Obstetrics and Gynecology*, 172(3):1026-1034, 1995.

15. Blondel, B. et al., "Home Uterine Activity Monitoring in France: A Randomized, Controlled Trial," *American Journal of Obstetrics and Gynecology*, 167(2):424-429, 1992.

16. Iams, J. D., F. F. Johnson, and R. W. O-Shaughnessy, "A Prospective Random Trial of Home Uterine Activity Monitoring in Pregnancies at Increased Risk of Preterm Labor, Part II," *American Journal of Obstetrics and Gynecology*, 150(3):595-603, 1988.

## XII. Environmental Impact

The agency has determined under 21 CFR 25.34(b) that this reclassification action is of a type that does not individually or cumulatively have a significant effect on the human environment. Therefore, neither an environmental assessment nor an environmental impact statement is required.

## XIII. Analysis of Impacts

FDA has examined the impacts of the notice under Executive Order 12866 and the Regulatory Flexibility Act (5 U.S.C. 601-612) (as amended by subtitle D of the Small Business Regulatory Fairness Act of 1996 (Public Law 104-121), and the Unfunded Mandates Reform Act of 1995 (Public Law 104-4)). Executive Order 12866 directs agencies to assess all costs and benefits of available regulatory alternatives and, when regulation is necessary, to select regulatory approaches that maximize net benefits (including potential

economic, environmental, public health and safety, and other advantages; distributive impacts; and equity). The agency believes that this reclassification action is consistent with the regulatory philosophy and principles identified in the Executive Order. In addition, the reclassification action is not a significant regulatory action as defined by the Executive Order and so is not subject to review under the Executive Order.

The Regulatory Flexibility Act requires agencies to analyze regulatory options that would minimize any significant impact of a rule on small entities. Reclassification of the device from class III to class II will relieve manufacturers of the cost of complying with the premarket approval requirements in section 515 of the act. Because reclassification will reduce regulatory costs with respect to this device, it will impose no significant economic impact on any small entities, and it may permit small potential competitors to enter the marketplace by lowering their costs. The agency therefore certifies that this reclassification action, if finalized, will not have a significant economic impact on a substantial number of small entities. In addition, this reclassification action will not impose costs of $100 million or more on either the private sector or State, local, and tribal governments in the aggregate, and therefore a summary statement of analysis under section 202(a) of the Unfunded Mandates Reform Act of 1995 is not required.

## XIV. Request for Comments

Interested persons may, on or before October 28, 1999, submit to the Dockets Management Branch (address above) written comments regarding this document. Two copies of any comments are to be submitted, except that individuals may submit one copy. Comments are to be identified with the docket number found in brackets in the heading of this document. Received comments may be seen in the office above between 9 a.m. and 4 p.m. Monday through Friday.

Dated: June 30, 1999.

**Linda S. Kahan,**

*Deputy Director for Regulations Policy, Center for Devices and Radiological Health.*

[FR Doc. 99-19530 Filed 7-29-99; 8:45 am]

BILLING CODE 4160-01-F

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Food and Drug Administration

**[Docket No. 99N-2098]**

### Computer-Controlled Potentially High Risk Medical Devices—List of Device Types

**AGENCY:** Food and Drug Administration, HHS.

**ACTION:** Notice.

**SUMMARY:** The Food and Drug Administration (FDA) is announcing the availability of a document entitled "Computer-Controlled Potentially High Risk Medical Devices—List of Device Types." FDA has developed a list of types of computer-controlled, potentially high-risk medical devices that have the potential for the most serious consequences for the patient should they fail because of date-related problems. This list will be useful to FDA, manufacturers, and health care facilities as they prioritize and assess their efforts to prevent potential Year 2000 (Y2K) problems with medical devices. This list has previously been made available on FDA's web site.

**FOR FURTHER INFORMATION CONTACT:** Thomas B. Shope, Center for Devices and Radiological Health (HFZ-140), Food and Drug Administration, 9200 Corporate Blvd., Rockville, MD 20850, 301-443-3314, ext. 32.

**SUPPLEMENTARY INFORMATION:**

### I. Background

In order to more sharply focus agency efforts related to the possible impact of the Y2K date problem on medical devices, FDA has developed a list of types of computer-controlled, potentially high-risk medical devices that have the potential for the most serious consequences for the patient should they fail. Inclusion of a type of device on this list does not mean that all devices of this type have a date-related problem (are Y2K noncompliant) or, if they are Y2K noncompliant, that they necessarily pose a significant risk to patients. Rather, this list includes those types of devices that could pose a risk to patients if the date-related failure affects the function or operation of the device. FDA will use this list to identify those devices (and manufacturers) that would present the most serious risks to patients if they experienced a Y2K related failure. This will help the agency to focus attention on the devices that could present the highest levels of risk.

The list includes the types of computer-controlled devices whose failure to function as designed or expected could result in immediate and serious adverse health consequences. These potentially high-risk devices are those that are:

1. Used in the direct treatment of a patient where device failure could compromise the treatment or could injure the patient, or
2. Used in the monitoring of vital patient parameters and whose data are immediately necessary for effective treatment, or
3. Necessary to support or sustain life during treatment or patient care.

The list does not include diagnostic devices whose failure would not result in immediate harm to the patient, even though the diagnostic information they provide might be unavailable or incorrect. However, a few diagnostic devices have been included, if the results of calculations or other information processing by the device would not be readily apparent to the user, and a Y2K failure of the device could reasonably lead to serious adverse health consequences before being detected by the user.

This list of computer-controlled potentially high-risk devices will be used by FDA for several purposes and can also provide a guide to health care facilities regarding the types of devices that should receive priority in their assessment and remediation of medical devices.

FDA will identify all manufacturers of these types of devices. These manufacturers will be candidates for further oversight to provide increased assurance that product Y2K status has been carefully assessed and that any Y2K-related upgrade has been developed and tested in accordance with the quality system regulations. That oversight may include facility inspection or audit. FDA will also ascertain whether these manufacturers have made Y2K status information available to users, and that, where appropriate, users have received notification regarding any remedial action that may be necessary.

This list should not be considered a definitive list of all high-risk devices. It was developed by FDA staff based on their assessment of the types of devices that have the greatest potential for direct patient risk should they fail to correctly process date-related information. FDA will update the list, if necessary.

### II. Electronic Access

In order to receive a copy of "Computer-Controlled Potentially High Risk Medical Devices—List of Device Types" via your fax machine, call the CDRH Facts-On-Demand (FOD) system

Enclosure

Summary Comments and Responses

The first comment states that these devices are currently being used for off-label uses, which raises safety questions. The comment also states that the commentator is concerned that the lower level of regulation will encourage further unsupported claims and that the device should, therefore, stay in its current classification.

FDA acknowledges that it is possible that a change in the classification of these devices may impact how the device is promoted or used, but disagrees that the device should be left in its current classification. As specified by the guidance document, the labeling for this device should clearly state the intended use for which it has been approved. Marketing of the device for other indications will not be legal and appropriate action may be taken against the offenders. Off-label use by a physician is the practice of medicine, and is not within the purview of FDA. Decisions for reclassification are not based on whether the action will increase illegal marketing practices or the practice of medicine issues.

Comment two states that the patient registries are not an effective and appropriate control for the following reasons:

a. The information required by the patient registry is beyond the scope of information readily available;
b. The use of the registry intrudes into the practice of medicine because it does not collect information that benefits the patient, physician or manufacturer;
c. The collection of patient registry data will not result in information that will be meaningful; and,
d. The expense and resources required to do the registry are unduly burdensome and excessive.

FDA disagrees with the comment because we believe that the information is needed, does not interfere with the practice of medicine, and is not unduly burdensome. FDA is not required to consider the cost to a manufacturer of a regulatory action. However, we would not want to impose a burdensome requirement without a benefit. We feel that this information will be beneficial to the physician, by increasing his knowledge in regard to effective use of the device. Therefore, we do not feel that the collection of data is unduly burdensome or that it will result in meaningless information.

Comment three states that:

a. the reclassification is unlawful because (i) no new information has become available since the class III determination, (ii) it is relying on clinical data from previous premarket approval applications (PMAs), and (iii) it is unsupported by the record, and
b. the proposed specials controls are inadequate and inappropriate.

FDA agrees that it would be unlawful to use PMA data to reclassify these devices. However, we disagree that no new information has become available since the class III determination and that FDA is relying upon clinical data from previous PMAs because there is additional new information other than the PMA data. The petition for reclassification includes 78 references from the literature. As the comment notes, FDA specifically cited 5 references dated from 1988 to 1995 (64 FR 41435). The first PMA was presented to the Panel for consideration in 1988 and the first PMA was approved in 1990. Moreover, the majority of the literature references were published in the last ten years. It is this information that the Panel used to help render their decision. Because of the volume of literature, reliance on previously submitted PMA data was not needed to have sufficient information for consideration of the issue.

In regard to the part of the comment that this action is unsupported by the record, we disagree with this part of the comment because actions taken by FDA followed our regulatory requirements. A PMA is required prior to marketing for class III devices. This requirement does not change until a reclassification occurs. FDA used the advice of the Panel to determine the study requirements for Home Uterine Activity Monitors. The studies used to support the three PMAs that were approved are consistent with the requirements discussed by the Panel, which have not changed significantly since the first PMA was approved. The record on FDA's action in regard to HUAMs, summarized briefly here, follows regulatory requirements for class III devices.

FDA disagrees that the proposed special controls are inadequate and inappropriate. In regard to preclinical issues, the proposed special controls are consistent with the presentations made by FDA at the Panel meeting. Special controls regarding clinical studies and patient registries were specifically identified and recommended by the advisory panel. FDA believes that these special controls are appropriate and adequate to control the risks to health described for HUAMs. FDA believes that both preclinical and clinical special controls address important aspects of device safety, effectiveness, and appropriate use.

The fourth comment states that

a. the device benefit is unproven,
b. a randomized controlled trial of sufficient power should be done to establish benefit, and
c. reclassification will result in increased non-beneficial use of tocolytics.

FDA disagrees with the comments that the benefit of this device is unproven and another type of randomized controlled clinical trial is required. The Panel recommended approval of the first HUAM, the PDS Genesis, in 1990. With recommendations from its advisory Panel, FDA approved a total of 3 PMAs for other HUAMs. For this reclassification petition, FDA and its advisory Panel considered numerous published studies, many of them randomized and controlled, regarding HUAM effectiveness. FDA has concluded that, within the limitations

of the indications for use statements, HUAM effectiveness has been demonstrated.

With regard to reclassification resulting in the increased non-beneficial use of tocolytics, FDA agrees it is possible that a change in the regulation of these devices may impact how patients are managed. However, we disagree that reclassification will result in an increased use of tocolytics. Increased use of tocolytics as a result of the use of this device is a clinical practice issue, which is not considered by FDA.

The fifth comment states that there are over ten thousand physicians who know the effectiveness of this device and that the additional unnecessary documentation will reduce the availability of the device. This comment appears to be addressing the issue of patient registries. The commentor states that thousands of physicians already know HUAMs are effective and that further attempts (like patient registries) to obtain additional information will only burden the physician and discourage HUAM use.

FDA agrees that the device has been shown to be effective within the limited indication for which these devices have been approved. However, FDA disagrees with the comment that certain special controls should not be applied because they will burden the physician and discourage use. FDA believes that patient registries will contribute useful information that addresses previously identified risks, such as unnecessary evaluation and treatment resulting from an imprecise definition of preterm labor. The use of patient registries as a special control does place some responsibilities upon the manufacturer and clinician, but FDA believes that such controls can be applied without undue burden.