



Z-Medica Corporation  
Robert V. Packard  
Quality Assurance Manager  
4 Fairfield Boulevard  
Wallingford, Connecticut 06492

June 11, 2023

Re: K050769  
Trade/Device Name: QuikClot® Brand Hemostatic Agent  
Regulatory Class: Unclassified  
Product Code: QSY

Dear Robert V. Packard:

The Food and Drug Administration (FDA) is sending this letter to notify you of an administrative change related to your previous substantial equivalence (SE) determination letter dated April 14, 2005. Specifically, FDA is updating this SE Letter because FDA has better categorized your device technology under product code QSY.

Please note that the 510(k) submission was not re-reviewed. For questions regarding this letter please contact Julie Morabito, OHT4: Office of Surgical and Infection Control Devices, 240-402-3839, [Julie.Morabito@fda.hhs.gov](mailto:Julie.Morabito@fda.hhs.gov).

Sincerely,

**Julie A. Morabito -**

**S**

Julie Morabito, Ph.D.

Assistant Director

DHT4B: Division of Infection Control  
and Plastic Surgery Devices

OHT4: Office of Surgical  
and Infection Control Devices

Office of Product Evaluation and Quality  
Center for Devices and Radiological Health



Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

APR 14 2005

Mr. Robert V. Packard  
Quality Assurance Manager  
Z-Medica Corporation  
4 Fairfield Boulevard  
Wallingford, Connecticut 06492

Re: K050769  
Trade/Device Name: QuickClot® Brand Hemostatic Agent  
Regulatory Class: Unclassified  
Product Code: FRO  
Dated: March 23, 2005  
Received: March 25, 2005

Dear Mr. Packard:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

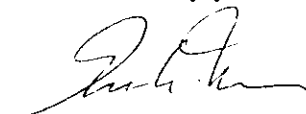
Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

Page 2 – Mr. Robert V. Packard

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (240) 276-0120 . Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely yours,



*for* Miriam C. Provost, Ph.D.  
Acting Director  
Division of General, Restorative  
and Neurological Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

K050769

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### STATEMENT OF INDICATIONS FOR USE

QuikClot<sup>®</sup> Brand Hemostatic Agent is intended for emergency use only as an external temporary traumatic wound treatment to achieve hemostasis for moderate to severe bleeding.

Prescription Use              
(Part 21 CFR 801 Subpart D)


AND/OR

Over-The-Counter Use              
(21 CFR 807 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

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Concurrence of CDRH, Office of Device Evaluation (ODE)



Restorative

K050769

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## 510(k) Summary

Trade Name:	QuikClot <sup>®</sup> Advanced Beaded Formulation
Device Class:	Class 1
Classification Panel:	General and Plastic Surgery
Common Name:	Traumatic Wound Dressing
Classification Name:	Dressing
Classification Code:	FRO
Predicate Device:	QuikClot <sup>®</sup> Brand Hemostatic Granules 510(k) No. K013390
Submitted By:	Robert V. Packard, QA Manager
Company Name:	Z-Medica Corporation
Company Address:	4 Fairfield Blvd., Wallingford, CT 06492
Company Phone:	(203) 294-0000
Prepared:	March 23, 2005

## Device Description

The new bead form of QuikClot<sup>®</sup> Brand Hemostatic Agent, also called "Advanced Beaded Formulation", is intended for emergency use as an external temporary traumatic wound treatment to achieve hemostasis and prevent blood loss.

The beads consist of a synthetic molecular sieve (zeolite) that accelerates the body's natural clotting processes by increasing the concentration of platelets and clotting factors at the wound site. Individual sieve particles of the hemostatic agent adsorb water molecules. As the water is removed from the blood, the platelets and clotting factors are concentrated. The platelets have been activated by the normal response to injury. This adsorption process is exothermic. The resultant increase in temperature at the site of application increases the rate of the clotting reactions and platelet aggregation and adhesion.

Both of the mechanisms described above, concentration of clotting factors and the increase in rates of platelet aggregation/adhesion, work together to increase the clotting rate. This would be consistent with what is known about the effects of temperature and concentration on coagulation enzyme activity and platelet function.

The product is designed and packaged to be easily packed, carried and applied using only one hand. It is well suited for moderate to large eviscerating wounds, to create hemostasis by coagulation.

Used in conjunction with direct pressure, QuikClot<sup>®</sup> Brand Hemostatic Agent, Advanced Beaded Formulation reduces blood loss dramatically, and significantly increases survivability of high volume catastrophic wounds.

*In-Vivo* testing on swine was performed at the Portsmouth Naval Hospital in Virginia. Tests demonstrated that the bead form performs at least as well as the current

granular product in the swine femoral artery model. A summary of that testing is included with this pre-market submission.

This application for Special 510(k) clearance concerns the same hemostatic agent in two different physical sizes with a round bead shape instead of granular. The intended use of the product, however, is the same: temporary external use only. The granular and bead forms have the same chemical composition, but the physical size and shape are different. Chemical analysis, performed by the manufacturer of the synthetic molecular sieve, verified the compositions of both sizes of round beads are identical to the current granular product. Therefore, Z-Medica Corporation has determined that repeating the biocompatibility testing is not required. The original biocompatibility testing was completed by ISO 17025 Certified MicroTest Laboratories, Inc., of Agawam, Mass. The tests included:

Test	Sample #	Dated
Agar Overlay Cytotoxicity Test	02-00480	01/29/02
Water Adsorption Rate	02-00254	01/21/02
Skin Sensitization	01-06556	12/21/01
Skin Irritation	01-06555	12/07/01
Intracutaneous Test	01-06554	11/30/01
Muscle Implant	01-06476	01/08/02
Long-Term Muscle Implant	03-01247	11/13/03

QuikClot<sup>®</sup> Brand Hemostatic Agent, Advanced Beaded Formulation is a safe, effective, low cost traumatic wound dressing which is substantially alike in purpose, characteristic, process, and result to the QuikClot<sup>®</sup> Brand Hemostatic Granules, and thereby eligible for approval under 510(k).