# De Novo Program

November 4, 2014

### **Elias Mallis**

Director

Division of Industry and Consumer Education
Office of Communication and Education
Center for Devices and Radiological Health
U.S. Food and Drug Administration





### **Learning Objectives**

- Describe the legal and regulatory basis for the de novo program
- Describe the de novo submission process
- Assemble the materials that will lead to a good quality de novo submission
- Identify the resources useful in preparing a de novo

### What is a de novo?

### A classification process:

- using a risk-based strategy
- for new, novel devices whose type has not previously been classified
- would be classified into Class III
- > to classify into Class I or II

### What is a de novo?

- an application sent by the medical device sponsor to FDA
- if granted:
  - > establishes new "device type" along with classification, regulation, necessary controls and product code
  - → device is eligible to serve as a predicate for new medical devices, where appropriate [510(k) process]

# Federal Food, Drug, and Cosmetic Act (the FD&C Act)

### **Medical Device Amendments, 1976**

### Section 513

- classification of medical devices
- risk-based approach:
  - 513(a)(1)(A): Class I, "General Controls"
  - 513(a)(1)(B): Class II, "Special Controls"
  - 513(a)(1)(C): Class III, "Premarket Approval"

### Reference

### Regulatory Controls (General, Special, PMA)

 http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidan ce/Overview/GeneralandSpecialControls/default.htm

### FD&C Act

### **Medical Device Amendments (1976)**

### **Section 513(a)(1)(C)**

- Class III, require Premarket Approval
- devices with highest risk
- unable to rely on general and/or special controls

### FD&C Act

### **Medical Device Amendments (1976)**

### Section 513(f)(1): "new devices"

- post-Amendments Class III devices
- a device not equivalent to a Class I or II device is classified into Class III: a "new device"
- regardless of risk

### FD&C Act – modified in 1997

Food and Drug Administration Modernization Act (FDAMA)

### Section 513(f)(2): established <u>de novo</u> classification process

- also known as "Evaluation of Automatic Class III Designation"
- provided regulatory authority for FDA to classify devices that were automatically classified into Class III per Section 513(f)(1) (new devices)
- to Class I or II using criteria of Section 513(a)(1)(A-B)
- excludes devices already classified into Class III (e.g., PMA-approved devices)

## De Novo Process, 1997

- 1. Sponsor submits premarket notification (510(k))
- 2. FDA issues final 510(k) decision of "not substantially equivalent" due to no predicate
- 3. Sponsor submits de novo request
- 4. FDA decides whether to classify device from Class III to Class I or II with new classification/regulation

### FD&C Act — further modified in 2012

Food and Drug Administration Safety and Innovation Act (FDASIA)

Section 513(f)(2) – de novo provision

### What changed

- allowed alternative pathway that doesn't require submission of a 510(k) prior to de novo request
- timeframe for review set at 120 FDA days
- goal: to streamline and increase efficiency in process

### FD&C Act — further modified in 2012

Food and Drug Administration Safety and Innovation Act (FDASIA)

Section 513(f)(2) – de novo provision

### What didn't change

- still only applies to Section 513(f)(1) (new devices)
- sponsor may still submit 510(k) first (e.g., FDAMA pathway an option)
- intent and decision-making threshold for de novo eligibility unchanged

# De Novo Process, effective 2012

- 1. Sponsor submits de novo request
- FDA decides whether to classify device from Class III to Class I or II with new classification/regulation

## 1998 De Novo Guidance, final

New Section 513(f)(2) - Evaluation of Automatic Class III Designation, Guidance for Industry and CDRH Staff

This document is intended to provide guidance. It represents the Agency's current thinking on the above. It does not create or confer any rights for or on any person and does not operate to bind FDA or the public. An alternative approach may be used if such approach satisfies the requirements of the applicable statute, regulations, or both.

Office of Device Evaluation

Document issued on: February 19, 1998

Note: Due to enactment of FDASIA 2012, some aspects of this guidance may no longer be current.

## 2014 De Novo Guidance, draft

# De Novo Classification Process (Evaluation of Automatic Class III Designation)

# Draft Guidance for Industry and Food and Drug Administration Staff

#### DRAFT GUIDANCE

This guidance document is being distributed for comment purposes only.

Document issued on: August 14, 2014

You should submit comments and suggestions regarding this draft document within 90 days of publication in the *Federal Register* of the notice announcing the availability of the draft guidance. Submit written comments to the Division of Dockets Management (HFA-305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852. Submit electronic comments to <a href="http://www.regulations.gov">http://www.regulations.gov</a>. Identify all comments with the docket number listed in the notice of availability that publishes in the *Federal Register*.

### Reference

### **February 1998 Final Guidance**

 http://www.fda.gov/downloads/MedicalDevices/DeviceRegulation andGuidance/GuidanceDocuments/ucm080197.pdf

### **August 2014 Draft Guidance**

 http://www.fda.gov/downloads/medicaldevices/deviceregulationa ndguidance/guidancedocuments/ucm273903.pdf

## 2014 De Novo Guidance, draft

- published August 14, 2014
- reflects proposed policy and procedures to implement changes to de novo program from FDASIA 2012

### draft guidance:

- not implemented at this time
- if finalized, will replace 1998 Guidance
- 90-day public comment period

# 2014 De Novo Guidance, draft Major Items

- explains changes to FD&C Act:
  - allowed alternative pathway that doesn't require submission of a 510(k) prior to de novo request
  - timeframe for review set at 120 FDA days
- Decision Options: grant or decline
- Pre-Submission meeting process
- new term: "direct de novo" (no 510(k) prior to de novo submission)

# De Novo Submission Process

## Submission Process: Two Pathways

### Pathway #1: 510(k) → de novo

- attempt 510(k) route with proposed predicate device
- submission found NSE, but candidate for de novo

### Pathway #2: direct de novo

 useful if you believe proposed device is viable de novo candidate (esp. with feedback from Pre-Sub program)

Pathway #1: 510(k) → *de novo* 

When to use: You believe you have a suitable predicate device.

### 1. Sponsor submits 510(k) submission

this should be a complete 510(k) submission

Pathway #1: 510(k) → *de novo* 

# 2. FDA reviews 510(k) submission; makes NSE finding due to lack of predicate

- <u>lack of predicate</u> = proposed predicate device does not have same intended use and technological characteristics as new device.
- FDA may choose to indicate in NSE letter that new device <u>may</u> be appropriate *de novo* candidate (based on risk-benefit profile, not adequacy of data submitted)
  - the suggestion for de novo is not binding

Pathway #1: 510(k) → *de novo* 

### 3. Sponsor submits de novo application

- reference prior 510(k)
- provide additional evidence to demonstrate safety and effectiveness of new device, as appropriate
- address any differences and evidence gaps between 510(k) device and de novo: provide added testing, S&E information as needed

Pathway #1: 510(k) → *de novo* 

### 3. Sponsor submits de novo application:

- characterize <u>risks to health</u> associated with use of new device
- characterize how the risks may be <u>mitigated</u>
- provide <u>rationale</u> for why device does not fit into an existing regulation
- if propose Class II classification, then identify the <u>special controls</u> to mitigate the risks to health

Pathway #1: 510(k) → *de novo* 

### 4. FDA reviews de novo application

- may interact with sponsor, ask for additional information
- render final de novo decision: grant or decline

Pathway #2: direct de novo

- > When to use:
  - You believe you don't have a suitable predicate device either based on your own assessment or through FDA feedback AND
  - 2. You believe the device may be classified into Class I or II per de novo.

Pathway #2: direct de novo

### 1. Sponsor submits de novo application:

- evidence that establishes reasonable assurance of safety and effectiveness of new device
  - most information typically submitted in traditional 510(k) submission
  - device description
  - labeling
  - performance testing (bench, animal, clinical)

Pathway #2: direct de novo

### 1. Sponsor submits de novo application:

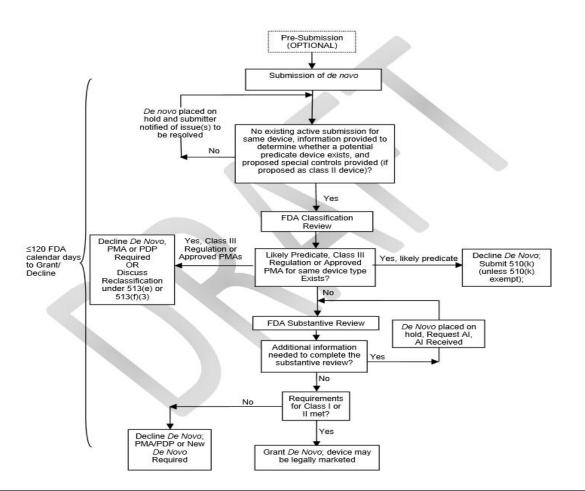
- characterize <u>risks to health</u> associated with use of new device
- characterize how the risks may be <u>mitigated</u>
- provide <u>rationale</u> for why device does not fit into existing regulation (either 510(k) or PMA)
- if propose Class II classification, then identify the <u>special controls</u> to mitigate the risks to health

Pathway #2: direct de novo

### 2. FDA reviews de novo application

- may interact with sponsor, ask for additional information
- render final de novo decision: grant or decline

# 2014 *De Novo* Guidance, draft New Flowchart



## **Getting Informal Feedback:**

**Pre-Sub** 

# FDA strongly encourages sponsors to use Pre-Sub program for potential de novos!

- after device design and intended use are established
- after sufficient information has been collected regarding safety and effectiveness (e.g., test methods)
- useful for novel devices with no FDA regulatory history, based on your research

### Reference

### **Pre-Submission Program Guidance**

• <a href="http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceBocuments/ucm310375.htm">http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceBocuments/ucm310375.htm</a>

# What happens after a de novo is granted?

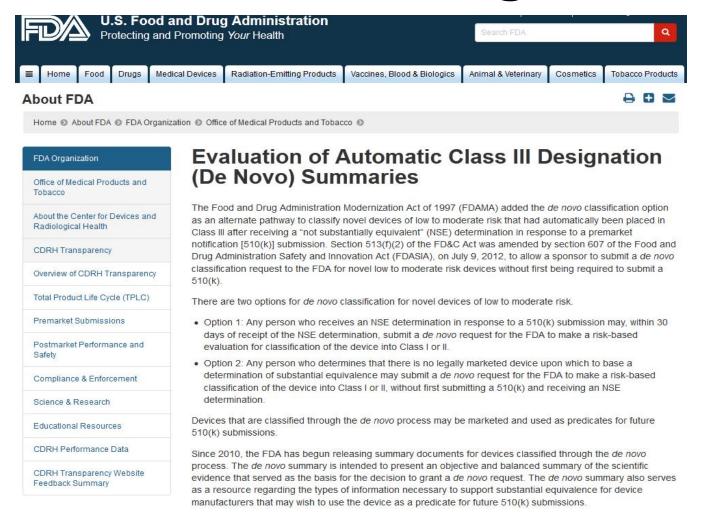
## After de novo is granted

- New Device is Legally Marketed
  - subject to post-market requirements applicable to that device and class (including general controls, special controls as applicable)
- New Device Establishes New Classification Regulation
  - new device is eligible to serve as a predicate for future similar devices
    - follows standard 510(k) process

# After de novo is granted

- FDA publishes order announcing new classification, controls
- FDA generates decision summary that is publicly available

## After de novo is granted



### Resource

### **FDA Transparency Website**

www.fda.gov/AboutFDA/CentersOffices/OfficeofMedicalProducts andTobacco/CDRH/CDRHTransparency/ucm232269.htm

# After de novo is granted

Links to all available de novo summary documents can be found in the table below.

Device Name	File Number	Classification Order	Decision Summary
Xpert MTB/RIF Assay	K131706	Classification Order	Decision Summary
ReWalk™	K131798	Classification Order	Decision Summary
Prostate Immobilizer Rectal Balloon	K132194	Classification Order	Decision Summary
EUROIMMUN Anti-PLA2R IFA	K132379	Classification Order	Decision Summary
IOGYN System	K132695	Classification Order	Decision Summary
MiSeqDx Universal Kit 1.0	K133136	Classification Order	Decision Summary
Lyra™ Direct HSV 1 + 2/VZV Assay	K133448	Classification Order	Decision Summary
Simplexa™ HSV 1 & 2 Direct	K133621	Classification Order	Decision Summary
Lyra Direct Strep Assay	K133883	Classification Order	Decision Summary
STUDIO on the Cloud Data Management Software	K140016	Classification Order	Decision Summary

### Classification Order (pages 1, 3)



#### DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Food and Drug Administration 10903 New Hampshire Avenue Document Control Center – WO66-G609 Silver Spring, MD 20993-0002

September 13, 2013

NeoTract, Inc. % Nancy E. Isaac, JD, MPH Vice President, Clinical Affairs, Regulatory Affairs and Quality 4473 Willow Road, Suite 100 Pleasanton. CA 94588

Re: K130651

NeoTract UroLift® System, Model REF UL400

Evaluation of Automatic Class III Designation - De Novo Request

Regulation Number: 21 CFR 876.5530

Regulation Name: Implantable transprostatic tissue retractor system

Regulatory Classification: Class II

Product Code: PEW Dated: March 6, 2013 Received: March 7, 2013

Dear Ms. Isaac:

The Center for Devices and Radiological Health (CDRH) of the Food and Drug Administration (FDA) has completed its review of your *de novo* request for classification of the NeoTract UroLift® System, a prescription device under 21 CFR Part 801.109 that is indicated for the treatment of symptoms due to urinary outflow obstruction secondary to benign prostatic hyperplasia (BPH) in men age 50 and above. FDA concludes that this device, and substantially equivalent devices of this generic type, should be classified into class II. This order, therefore, classifies the NeoTract UroLift® System, and substantially equivalent devices of this generic type, into class II under the generic name, implantable transprostatic tissue retractor system.

FDA identifies this generic type of device as:

An implantable transprostatic tissue retractor system is a prescription use device that consists of a delivery device and implant. The delivery device is inserted transurethrally and deploys the implant through the prostate. It is designed to increase prostatic urethral patency by providing prostate lobe tissue retraction while preserving the potential for future procedures and is intended for the treatment of symptoms due to urinary outflow obstruction secondary to benign prostatic hyperplasia (BPH) in men.

In accordance with section 513(f)(1) of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 360c(f)(1)) (the FD&C Act), devices that were not in commercial distribution prior to May 28, 1976

Page 3 - Nancy Isaac, JD, MPH

Table 1 - Potential Risks and Mitigations

Identified Risk	Mitigation Measure	
Adverse Tissue Reaction to the Device	Biocompatibility Testing     In Vivo Testing	
Infection Due to Presence of Foreign Body	Sterilization Validation     Labeling (including expiration dating)	
	3. Shelf life testing	
Migration of Implanted Device	In Vivo Testing     MR Compatibility Testing	
Failure to Deploy Device or Misdeployment	1. Non-clinical Testing	
	2. In Vivo Testing	
	3. Labeling	
Failure of Implanted Device	Non-clinical Testing (Mechanical)	
	<ol><li>Non-clinical Testing (Resistance to Degradation)</li></ol>	
	3. Shelf life testing	
	4. In Vivo Testing	
	5. Labeling	
Improperly Placed Implants	1. In Vivo Testing	
	2. Labeling	
Occurrence of Genito-Urinary Adverse Events	1. In Vivo Testing	
	2. Labeling	
Presence of Implants Adversely Affects Subsequent	1. Non-clinical Testing	
Interventions	2. In Vivo Testing	
	3. Labeling	

In addition to the general controls of the FD&C Act, the *implantable transprostatic tissue retractor* system is subject to the following special controls:

- The elements of the device that may contact the patient must be demonstrated to be biocompatible.
- Performance data must demonstrate the sterility of the patient-contacting components of the device.
- Performance data must support shelf life by demonstrating continued sterility of the device (of the patient-contacting components), package integrity and device functionality over the requested shelf life.
- Non-clinical testing data must demonstrate that the device performs as intended under anticipated conditions of use. The following performance characteristics must be tested:
  - a. Deployment testing must be conducted
  - Mechanical strength must be conducted
  - c. Resistance-to-degradation testing must be conducted

### **Decision Summary (1st 2 pages)**

DE NOVO CLASSIFICATION REQUEST FOR NEOTRACT'S UROLIFT SYSTEM

#### REGULATORY INFORMATION

FDA identifies this generic type of device as:

Implantable Transprostatic Tissue Retractor System. An implantable transprostatic tissue retractor system is a prescription use device that consists of a delivery device and implant. The delivery device is inserted transurethrally and deploys the implant through the prostate. It is designed to increase prostatic urethral patency by providing prostate lobe tissue retraction while preserving the potential for future prostate procedures and is intended for the treatment of symptoms due to urinary outflow obstruction secondary to benign prostatic hyperplasia (BPH) in men.

NEW REGULATION NUMBER: 21 CFR 876.5530

CLASSIFICATION: II

PRODUCT CODE: PEW

#### BACKGROUND

**DEVICE NAME: UROLIFT SYSTEM** 

SUBMISSION NUMBER: K130651

DATE OF DE NOVO: MARCH 7, 2013

CONTACT: NEOTRACT, INC.,

NANCY ISAAC, JD, MPH - VP, Clinical Affairs, Regulatory and Quality

4473 WILLOW RD

STE 100

PLEASANTON, CA 94588

REQUESTER'S RECOMMENDED CLASSIFICATION: II

#### INDICATIONS FOR USE

The UroLift System is indicated for the treatment of symptoms due to urinary outflow obstruction secondary to benign prostatic hyperplasia (BPH) in men age 50 and above.

#### LIMITATIONS

1. Caution: Federal Law restricts this device to sale by or on the order of a physician.

- 2. The UroLift® System should not be used if the patient has:
  - Prostate volume of >80 cc
  - · An obstructive or protruding median lobe of the prostate
  - · A urinary tract infection
  - · Urethra conditions that may prevent insertion of delivery system into bladder
  - Urethra conditions that r
     Urinary incontinence
  - · Current gross hematuria
  - · A known allergy to nickel
- The safety of the delivery system has not been evaluated in the MR environment, and therefore, the delivery system should not be used within the MR environment.
- The UroLift<sup>®</sup> Implant has been shown to be MR Conditional and can be scanned under the following conditions:
  - · Static magnetic field strength of 3 Tesla or less
  - Maximum spatial gradient magnetic field of 720 Gauss/cm
  - A maximum whole-body-averaged specific absorption rate (SAR) of 4 W/kg for 15 minutes of scanning

PLEASE REFER TO THE LABELING FOR A MORE COMPLETE LIST OF WARNINGS, PRECAUTIONS AND CONTRAINDICATIONS.

#### DEVICE DESCRIPTION

Device Name: UroLift® System

Device Model(s): UL400

The UroLift® System is composed of two main components: the UroLift® Delivery Device and UroLift® Implant (Figure 1). Each Delivery Device comes pre-loaded with one UroLift® Implant. The insertion of the UroLift® Delivery Device into the male urethra is performed under direct visualization using standard surgical technique, using a standard cystoscopy sheath and a Karl Storz 10324AA telescope. The UroLift® Delivery Device is designed to access the prostatic urethra and deliver one UroLift Implant through a lateral lobe of the prostate. The UroLift® Delivery Device is inserted into the urethra through the penile orifice and used to displace the urethra toward the prostatic capsule. A UroLift® Implant is then deployed transversely through the prostatic tissue. The Implants secure the retracted position of the urethra thereby maintaining an expanded urethral lumen, reducing fluid obstruction and improving lower urinary tract symptoms (LUTS). This is accomplished by holding the approximated position of the inner (urethral) tissue and the outer (capsular) tissue of the prostate with the UroLift® Implant (Figure 2).

De Novo Summary (K130651) Page 1 De Novo Summary (K130651) Page 2

#### De Novo Database

Device Classification under Section 513(a)(1)(de novo)



### Reference

#### De Novo Database

http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfPMN/denovo.cfm

### **Submission Identification**

#### **DENXXZZZZ**\*

- DEN = de novo
- XX = year of submission (e.g., 14 = 2014)
- ZZZZ = submission increments from 0001
- \* Naming structure effective with new submissions as of Aug 2014.

### **Submission Identification**

- 510(k)s that lead to de novos both 510(k) and DEN numbers
- Direct De Novos no 510(k) number
- DEN process began August 2014
  - retroactively assigned DEN ID to prior de novos

# Suggested Information for Inclusion in *De Novo* Application

# Content Information - from 2014 Draft Guidance

### **Disclaimer:**

- not for implementation (draft)
- however, may contain useful information to consider for inclusion in your submission

#### 1. Administrative Information:

- applicant name
- contact name
- address
- contact information (phone, fax, email)

#### 2. Regulatory History:

Prior submissions to FDA for same device

- prior 510(k)s and related NSE decisions
- IDEs
- Pre-Submissions (Pre-Subs)
- previously withdrawn/declined de novos

#### 3. Device Information and Summary

- device name
- device description
- intended use/indications for use statement
- technological characteristics
- labeling (directions for use)

#### 4. Classification Summary

- review of FDA classifications, regulations, and approved PMAs to confirm that your device has not already been classified
  - in other words, confirmation that this is a "new device"

#### 5. Recommended Classification

- Class (i.e., either Class I or II)
- exempt or not-exempt
- justification for recommended classification, controls, and exemption (as applicable)

#### 6. Proposed Special Controls

applicable to Class II devices ONLY

#### 7. Supportive Evidence

- methods, data, results
- testing to include: pre-clinical, animal, clinical, where appropriate
- correlation between evidence and classification recommendation.

- 8. Summary of Benefits
- 9. Summary of Known/Potential Risks to Health
- 10. Risk and Mitigation Information
  - discussion of each risk, mitigation measure, and evidence
  - mitigation to include general and/or special controls

#### 11. Benefit-Risk Considerations

Discuss how benefits, with recommended general/special controls, outweigh risks

#### 12. Device Labeling

per Section 201(m) of FD&C Act

- 1. Do your homework and regulatory research to show your new device is eligible for *de novo*.
  - Verify that your new product is not already classified
  - Research all available databases (510(k), PMA, classification) and prior decisions
  - Especially important if you pursue direct de novo

Be specific with and finalize the device description and intended use.

 The specifics of the device description and intended use will determine whether the new device has a predicate to which it may be compared.

# 3. Complete all required performance testing prior to submission of de novo.

- De Novo application should be best effort to include all necessary information for FDA to make final de novo decision.
- Testing may include bench, animal, in vivo, in vitro, clinical.
- Each de novo will need the level of testing to characterize level of risk of device, demonstrate reasonable assurance of safety and effectiveness, and (as applicable), the appropriateness of special controls.
- Clinical testing not always be required, but likely in many cases.

# 4. Ensure that data support proposed intended use.

 If you propose intended use for multiple patient populations, provide evidence for all groups (or justification for not directly testing patient population)

- 5. Correlate each risk to health with a mitigation.
  - Consider similarities of new device risk with mitigation used for similar devices
    - ✓ Tip: Review special controls used for other granted de novo applications
  - Address each risk to health with at least one mitigation

 Being Low Risk helps support de novo eligibility, but isn't sufficient to be granted a de novo.

A new device that is low risk may be eligible for a de novo only:

- · if able to characterize risks to health and
- provide reproducible controls to manage those risks.

#### Does My Device Qualify for a De Novo?

#### 1. Has the <u>Device Type</u> already been classified by FDA?

- Device Type includes both intended use and technological characteristics
- 510(k) Pathway: Is there an applicable predicate device?
- PMA Pathway: Has the device type been approved under PMA?

#### 2. Factors to Consider for the New Device

- Does the device present low risk or moderate risk?
- Can we identify the risks to health associated with the new device?
- Can we identify the necessary controls (general and/or special) to mitigate the risks?

### Conclusion

- 1. De Novo provides a means for a new medical device to get to market.
- The eligibility for a de novo is based on several factors, such as FDA precedent, level of risk and the ability to characterize and mitigate risks of device.
- 3. The information needed in a *De Novo* includes evidence that demonstrates safety and effectiveness of new device and classification information.
- Several key resources such as FDA Pre-Submissions and public domain information on web may be useful.

### **Providing Industry Education**

#### 1. CDRH Learn – Multi-Media Industry Education

- over 80 modules videos, audio recordings, power point presentations, software-based "how to" modules
- accessible on your portable devices <a href="http://www.fda.gov/Training/CDRHLearn">http://www.fda.gov/Training/CDRHLearn</a>

#### 2. Device Advice – Text-Based Education

comprehensive regulatory information on premarket and postmarket topics
 <a href="http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance">http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance</a>

#### 3. Division of Industry and Consumer Education (DICE)

- If you have a question Email: <u>DICE@fda.hhs.gov</u>
- Phone: 1(800) 638-2014 or (301) 796-7100 (Live Agents 9am 4:30 pm EST)

#### Web Homepage:

http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/ContactUs--DivisionofIndustryandConsumerEducation/default.htm

# Thank you