MDUFA and its Impact on Medical Device Sector

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ABSTRACT
The U.S. Congress passed Medical Device User Fee Act (MDUFA), where FDA is required to assign and collect fees from manufacturers of medical devices to evaluate the functioning and the usage of the device. for the purpose of fastening the analysis of the application of the drug. The Medical Device User Fee Modernization Act was first adopted in 2002. The act focussed on innovative review process and reviewing capabilities of experts. Every five years, MDUFA comes up with reauthorisation. The act was reauthorized in 2007 by reducing the application fee and introducing certain new fees such as the annual product fee and annual establishment fee which helped in pre-market evaluation. Few issues being raised in MDUFA II led the congress to enact an amendment. The next revision of the act made the review process more efficient and interactive with the applicant to meet the timelines. Recent amendment has set up several new performance goals and propose certain changes to the previous amendments. The device manufacturers are currently in a position to receive regulatory approval in a short time compared to the pre-MDUFA period. MDUFA has helped in improving the patient health by streamlining the FDA's approval process for application of new medical device, thereby allowing patient’s quicker access to potentially life changing therapies.

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the product being sold in the U.S continues to meet the high safety and efficacy requirements (Mdufa and Pdufa, 2017).

Low-risk medical devices (Class I) and few moderate-risk medical devices (Class II) are excluded from pre-market review and fee payment (Dabrowska et al., 2017).

The user fee collection authority for medical devices is authorized in an expansion of five years. According to the 2002 user fee rule, the fee to be paid by FDA alone was for the pre-market review, such as the PMA application fee, PMA supplement or notification 510(K). MDUFA II of 2007 established two forms of annual fees to create a more reliable revenue stream for the agency institution registration fees, charged by most FDA-registered device establishments, and consumer fees paid for high-risk devices (Class III) that require regular reporting. MDUFA III (2012) has changed the definition of “registration fee establishment” increasing the number paying the fee. MDUFA I to III user fee is associated with pre market review of medical devices. MDUFA IV (2017) fee will fund medical device post-market monitoring by collecting evidence from different sources in the real world.

Objective

The purpose of this study is to provide a review of the medical device user fee act and its amendments; to evaluate MDUFA’s effect on the pharmaceutical industry.

Before MDUFA

In the years previous to the authorization of MDUFA, medical devices system of the FDA endured a long term, critical loss of asset that destabilized the programme’s ability and execution. It was in mid-2002 that medical device industry and congress understood that the programme needed an extra asset. A few of the disadvantages that signalled the delay were - facilitated premarket approval application that were taking longer than standard review; delay in review because of lack of expertise, and most of the guidance documents went out-of-date. Therefore, the medical device industry’s pioneers approached FDA and congress to start a discussion on new user fees and quicker product testing. Congress agreed that “FDA resources are limited, and it is possible that review times will increase in the future without a new influx of funding.” Shortly afterwards, the Senate, the FDA and industry tried to develop a response; the 2002 Medical Device User Fee and Modernization Act (Mdufma On Background, 2017).

Medical Device User Fee and Modernization Act

of 2002

MDUFMA was adopted in order to provide the FDA with the necessary resources for proper inspection of medical devices, to implement some regulatory changes so that medical device manufacturers can deliver safe and efficient products to the American public sooner and to ensure that original and reprocessed medical devices are similar in the event of safety and efficacy. MDUFMA has amended the Federal Food Drug and Cosmetics Act (FFDCA) to incorporate three important medical device requirement (Williams, 2010).

1. The user fee for the Pre-Market Analysis of devices has been created.
2. This allowed inspections by an approved individual to be carried out by the institution.
3. Introduced new regulatory requirements for reprocessed single-use products.

Progress under MDUFMA

The FDA has made significant progress in achieving the main goals of MDUFMA,

1. Research skills and expertise have been enhanced by hiring highly qualified practitioners, improving staff training and establishing a fellowship program for medical devices.
2. Innovative review process available.
3. The FDA has set up a Combined Products Office to enhance the coordination of product reviews.
4. Enhance the review process by creating digital reporting and project management initiatives (Mdufma On Background, 2017).

Two laws amended by MUDUFA

1. Medical Device Technical Correction Act (MDTCA):2004 – covering three MDUFMA zones.
2. The blockades in the third-party inspection program was removed.
3. The electronic labelling provisions were amended.
4. This postponed the execution of a clause requiring the product to bear the name of the manufacturer “principally and prominently” (FDA, 2016).
Medical Device User Fee Stabilization Act (MDUFSA) 2005

Covering five primary measures,

1. Reduced direct appropriation cause sums that were necessary for the company to receive user fees.

2. Revised the process of calculating user fee levels to reduce inflation, workload, compensation and final-year revenue changes used to calculate charges.

3. The HHS Secretary was allowed to use non-compulsory balance sheets of the fees collected in previous fiscal years.

4. It made registration and payment of reduced user fees simpler for small businesses.

5. Any reprocessed Single Use System (SUD) was deemed to be misbranded and therefore subject to FFDCA penalties if it did not identify the manufacturer but required such data to be provided by a detachable tag that was to be added to a
patient’s medical record (Williams, 2010).

Medical Device User Fee Amendment II

Types of charges included in MDUFA II were the existing fees for reducing implementation prices, new annual supplier establishment fees, new annual consumer payments for on-the-market products. Such fees were used solely for pre-market evaluation and separate post-market surveillance appropriations.

According to the FDA, the quantity of applications submitted each year increased and decreased, and fee revenue consistently fell short of expectations.

In MDUFA 2007, there were two augmentations made to address the issues FDA was facing. It includes, establishment fee and product fee. Establishment fee was paid every year by an FDA-registered device establishment and product charge was charged for each Class III device for which PMA mandated periodic reporting each year. MDUFA 2007 helped to rise the total income produced by user fee by balancing the amount from applications with less application fee with revenue from the new fees (Mdufa and Pdufa, 2017).

Another issue addressed by MDUFA 2007 was that dissatisfaction with suitable issues for small business user fee discounts had been expressed by native and foreign companies.

The charts Charts 1, 2 and 3 show the FY full fee, Full fee amount as a percentage of PMA and Fee of small business respectively for the following years 2003 (Establishment of Medical Device, 2003), 2007 (Medical Device, 2007), 2012 (Fiscal Year, 2012) and 2018 (MDUFA IV goals, 2018).

Medical Device User Fee Amendment III

MDUFA III was the outcome of more than a year of public input and discussions with members of government, clinicians and customer (MDUFA III, 2017).

MDUFA III adjusts the total revenue by means of a prescribed inflation adjustment, similar to the changes made under PDUFA, and adjustments are made in the base fee amount as necessary on a uniform proportional basis to produce the total revenue adjusted for inflation. Upon adjusting the base fee amounts for inflation, the establishment fee amount is further adjusted as appropriate to produce the overall adjusted revenue amount from the total fee collections for the fiscal year. The federal register consists of the current revised fee amounts and is published in the federal register 60 days before the beginning of each fiscal year, together with the purpose for changing the fee amounts (FDA, 2016).

Outcome

Process Improvements

Enhanced pre-submission process

This process improved the predictability of FDA solutions for industry. The FDA has implemented a structured approach to address product-specific issues related to Pre-Market Approvals (PMA), 510(k)s and Exemptions for Experimental Devices (IDEs).

Submission Acceptance Criteria
FDA carried out revised submission acceptance standard through guidance to make the Pre-Market review procedure more efficient.

Interactive Review
Informal communication among the FDA body of workers and device applicants helps to acquire suitable extra info and also helps in meeting assessment timelines.

Guidance Document Development
MDUFA III user fee supports the development of guidance documents by the FDA, which are posted on the FDA website and represent the current questioning of the agency on the issue (Fact sheet, 2012).

Third-Party Review
The third-party review program involves a third-party reviewer who will conduct the primary review of 510(k) submission and then publish the review to FDA for the final assessment. This program enhances the efficiency and timelines of FDA's 510(k) review process for a specific device type.

Emerging Diagnostics
The FDA will collaborate with industry under the MDUFA III program to develop a traditional approach to clinical technology regulation.

Medical Device User Fee Amendment IV
The MDUFA IV Agreement lays the foundation for further progress in FDA quality through more aggressive goals, substantial system changes and improved transparency, supported by additional resources (FDA User Fee Agreements, 2017).

MDUFA IV amended the Food, Drug and Cosmetics Act on user fees earned on or after October 2017 for certain pre-market applications, including:

1. Pre market approvals (PMA).
2. Certain biologics license application that are considered devices.
3. Premarket notification submissions 510(k).

The FDA has committed itself to many new MDUFA IV performance targets, including:

1. issue MDUFA approval decisions requiring the input of the advisory committee within 60 days of the recommendation of the board.
2. make a de novo decision within 180 days or resolve all outstanding issues if no decision is reached within that period.
3. the de novo process permits approval of medical devices with low to moderate risk that lack a significantly comparable product on the market without applying a510(k) or PMA. Make a decision within 60 days following the sponsor’s reaction to an accepted letter from MDUFA (Practical Law Life Sciences, 2017).

MDUFA IV Enhancements impact on User Fee Revenue
To order to enforce the MDUFA IV improvements, new funding is expected to be phased in during MDUFA IV. The new funding will be phased out as follows during each fiscal year (FY).

![Chart 4: New funding over each fiscal year](chart)

The chart 4 will be adjusted for inflation each year, as prescribed below.

Proposed Statutory Changes
The draft proposals include the following proposed amendments to the Federal Food Drug and Cosmetics Act related parts to incorporate the existing MDUFA IV enhancements:

Amend the premarket notification submission fee from 2 percent of the premarket application fee to 3.4 percent of the premarket application fee.

1. Modify the clause allowing small businesses to pay a reduced pre-market notice charge, increasing the payment from 50% of the standard fee to 25% of the standard fee.
2. Modify the charge for de novo identification applications equal to 30% of the pre-market application fee.
3. Change to reflect the requirement for a reduced fee for de novo classification applications submitted by a small business.
4. Modify to reflect that a reduced fee may be paid at 25% of the standard fee for a de novo classification application.
5. Specify the amount of the base fee

For Pre-market application
Chart 5 shows the Base Fee amount for the Pre-Market Application.

The proposed maximum statutory revenue amounts and base fee amounts are specified in (FY 2015) dollars so that annual inflation changes are used to inflate (FY 2015) dollars to appropriate amounts based on actual inflation rates as defined in the annual Federal Register Notice for each fiscal year in MDUFA IV.

Amend the fee setting process to reflect the negotiated agreement, where FDA is permitted to collect increased base fee amounts by not reducing the fee for larger submission and registrations. Further adjustments would be required only if the submissions and registrations are less than expected. In such cases, the base fee amount should be increased so as to produce the authorized total fee revenue in a given year.

Eliminate the fifth-year fee offset provision because the negotiated fee setting structure allows FDA to gather and utilize inflation adjusted base fee amounts each year with no decrease in fees due to increased submission or registration volume. Deleting the fee offset Provision is necessary to execute the negotiated fee setting structure.

Add a subsection to the provision on performance standards to provide power to FDA to establish a conformity assessment programme and to specify the requirements for establishing such program.

Amend the provision on accredited person to provide FDA authority to tailor the scope of the third-party review programme according to the contracts made with the regulated industry at the time of user fee reauthorization negotiation.

Amend the provision on electronic format for submission to provide FDA the authority to develop and implement electronic submissions according to the contracts made with the regulated industry at the time of user fee reauthorization negotiation.

RESULTS AND DISCUSSION

Performance report of MDUFA

MDUFMA I

It directed FDA to follow a set of product approval performance goals to reduce the time for FDA’s review of new devices and also to improve the accuracy of device review by FDA. Between FY2003 and FY2004, only a range of performance targets are implemented, allowing FDA to hire staff, build infrastructure, provide industry guidance and take other. Consequently, most of the performance targets of the comprehensive review came into effect in FY2005. Additional performance goals were introduced in FY2006 and FY2007, where each year...
the objectives became more difficult. On April 1, 2004, the Medical Device Technical Corrections Act (MDTCA) revised and extended MDUFMA I. Many of MDUFMA’s functions have been improved and expanded by MDTCA. The Stabilization Act, i.e. the Stabilization Act of the Medical Device User Fee, entered into force on August 1, 2005. However, The changes made by MDTCA and the Stabilization Act did not affect the performance targets. During FY 2008 and FY 2009, FDA continued to work towards meeting the decision goals of MDUFMA I for submissions received from FY 2007 in FY 2003. The final performance for MDUFMA I decision cohorts was included in the FY 2009 MDUFA Results Report to Congress (MDUFA, 2017).

MDUFA II (FY 2008 through FY 2012)

The 2007 Food and Drug Administration Amendments Act (FDAAA), signed on 27 September 2007 by the President, contained MDUFA II. Medical device user fee was being reauthorized by MDUFA II. It identified new performance goals through FY 2008-2012. New medical device pre-market review performance goals were committed by MDUFA II to FDA during a meeting, which were defined in the HHS Commitment Letter. Since FDA decisions are so firmly linked to the final approval or clearance of new devices, the new performance goals concentrate on FDA MDUFA decisions. The industry agreed to these performance goals and also these goals were a key part of negotiated package of user fees and other legislative/administrative changes made by MDUFA II. The attention of MDUFA II was to make decisions on time, as characterized for each kind of MDUFA related applications. Under this approach, there are two tiers for each of the performance goal, each with a distinct review time (number of days) and performance level (percentage of on time submissions). Tier 1 performance goal concentrated on finishing a predefined extent of reviews with shorter time period when compared to performance goals existed under MDUFMA I. Tier 2 performance goals concentrated on finishing large proportion of review within somewhat longer period that were built up under MDUFA II.

According to MDUFA II, HHS Secretary is required to submit to Congress two annual reports

Quality report
Financial report due within 120 days of the end of the fiscal year

MDUFA III

Some of the improvements in MDUFA III include progress in the evaluation process, structure and enhancement of efficiency. MDUFA III incorporated increased rigorous performance review targets and shared goals of the results. MDUFA III has been updated to accommodate improvements to the pre-market review process. MDUFA III will cover approximately 33% of the overall cost of the pre-market review process for medicinal devices.

CONCLUSIONS

The annual drop-in approval times were limited after the MDUFA. During the MDUFA era (2003-2008), as well as the period covered by the subsequent re-authorization of the law (2008-2012), this trend continued unabated, with data showing very small decline in device review times. The medical device fee was intended to provide stable and reliable funding for FDA with the need to reduce market entry barriers and encourage innovation. The fees aid in recruiting professional personnel, modernizing the information management process, promoting more communication between FDA and applicant, offering further advice to prospective applicants. Overall, these activities allow the FDA to review medical devices more efficiently, reliably, regularly, and transparently for safety and efficacy. It ultimately benefits distributors and suppliers, the culture of health care and, most importantly, the patients.

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