PHARMAVOICE

College News Letter

AISSMS
COLLEGE OF PHARMACY
IMPARTING EXELLENCE IN EDUCATION & RESEARCH

VOLUME 9 | ISSUE 2 | Oct-Dec 2023

Vision :

- To be amongst the top ten Pharmacy Colleges in India by imparting excellence in Pharmacy education.
- Instilling research temperament in Pharmacy student.
- Continuous upgradation of infrastructure to maintain high standards of education.

Mission :

- Inculcating timeless values of caliber, confidence and conscience in budding pharmacists.
- Indoctrinate quality in all aspects of Pharmacy education thereby enabling provision of better healthcare services.

Quality Policy :

- The AISSMS College of Pharmacy is committed to empower our students to meet global challenges in Pharmacy profession through excellence in education.
- Our highly qualified and committed faculty is constantly exploring newer frontiers of knowledge with the intention to build quality pharmacist.
- We believe in honing the overall persona of our students through excellence in academics, co-curricular and extracurricular activities.
- We strive to develop a sense of social obligation and discipline among our students not only to make them better technocrat but also a better human being.

Objectives :

- To provide sufficient understanding of scientific principles and techniques of pharmaceutical sciences.
- To develop comprehensive knowledge and experience.
- To provide exposure to latest techniques and technologies.
- To teach pharmacy ethics to students.
- To cater to manpower for globally growing pharmaceutical industry and for implementation of drug laws for compliance to regulatory norms.

Content

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Editorial:

As we traverse the ever-changing landscape of life, we often encounter unexpected challenges that test our mettle, resilience, and adaptability. The journey of education is not just about acquiring knowledge but also about honing the skills that will help us overcome these obstacles and emerge stronger than ever.

> **“The only limit to our realization of tomorrow will be our doubts of today."**
>
> **-Franklin D. Roosevelt**

You don't have to navigate life's challenges alone. Seek support from your teachers, mentors, friends, and family. They can provide guidance, encouragement, and different perspectives that may help you find solutions to the challenges you face. Remember, reaching out is a sign of strength, not weakness. Every challenge is a lesson waiting to be learned. Reflect on your experiences, analyze what went well and what didn't, and apply these insights to future endeavors. The ability to learn from your mistakes and experiences is a powerful tool for personal and professional growth.In conclusion, life's challenges are an integral part of your journey, and they shape you into a stronger, more resilient individual. Embrace these challenges as opportunities for growth, learning, and self-discovery. With the right mindset and support, you can overcome any obstacle that comes your way. We bring to you our newsletter and hope it gives our readers an insight into the Pharma industry.

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News and Events

1. Best Project Competition

Date: 26.05.2023 to 30.05.2023

Time: 10.00 am to 5.00 pm

Audience/Attended by: Semester VIII Students

Organized by: Dr. Sachin Tembhurne and Dr. Mrinalini Damle

Description of Activity: In the academic year 2022-23, A Best project competition was held for the Semester VIII projects from the 5 different subjects The students presented their project work. External examiners were appointed for the fair evaluation of the project work. The students and their guide were awarded with certificates and medals.

" The only way to do great work is to love what you do"
- Steve Jobs

2. Installation of Composting Pit Units at AISSMS College of Pharmacy Medicinal Garden.

Date: 24.0.8.2023 (Thursday)

Time: 2:30 to 3:50 pm

Audience/Attended by: Students, Staff

Organized by: T.Y.B. Pharm Students, Ecoranger Committee Students & teachers, AISSMS College of Pharmacy Pune.

Anchors: Chief guest were 1) Mrs. Archana Kalyani , 2) Mrs. Anushka Kajbaje, CERI (Conservation Education Research Institute)

Description: Installation of vermicomposting pits were carried outfor medicinal plant garden of the pharmacy college by the agency CONSERVATION EDUCATION & RESEARCH INSTITUTE

Waste Management: To effectively manage organic waste generated within the college premises, green & dry fallen tree leaves, garden trimmings.

Compost Production: To produce high-quality compost that can be used to enrich the soil in the college gardens and landscaping.

Educational Tool: To serve as an educational tool for students, staff, and visitors, promoting awareness about composting, waste reduction, and environmental sustainability.

The installation process involved the following steps:

Site Selection: Suitable locations were identified on the college premises to set up the vermicomposting pit units. Factors considered included proximity to waste sources, accessibility, and sunlight exposure.

Pit Construction: The vermicomposting pits (Earthen Pots)

Introduction of Microorganisms: are known for their ability to efficiently break down organic matter.

Maintenance and Monitoring: Regular maintenance included adding organic waste, ensuring proper moisture levels, and monitoring the composting process. Excess moisture and odors were managed through proper aeration.

Results: Compost Production: The vermicomposting units successfully transformed organic waste into nutrient-rich compost over the course of several months. The compost produced was used to enrich the college gardens, contributing to healthier plant growth.

Waste Reduction: The implementation of vermicomposting significantly reduced the amount of organic waste being sent to landfills. This had a positive impact on the college's waste management practices.

Educational Impact: The vermicomposting units served as a valuable educational tool. Workshops, seminars, and demonstrations were conducted to educate students and staff about the composting process and its environmental benefits.

Conclusion:

The installation of vermicomposting pit units at AISSMS College of Pharmacy has proven to be a successful initiative in promoting sustainable waste management and environmental awareness. The project's success lies in the collaborative efforts of students, staff, and administration. By effectively managing organic waste and producing nutrient-rich compost, the college has taken a significant step towards reducing its ecological footprint.

This initiative not only contributes to a cleaner and greener campus but also imparts valuable lessons on waste reduction and environmental responsibility to the college community.

"The only person you are destined to become is the person you decide to be - Ralph Waldo Emerson

3. HPTLC Lecture, Demonstration and Hands on Training Program

Date:04/10/2023

Time: 10.00 AM to 5.00 PM (Full Day)

Audience/Attended by: Pharmaceutical Quality Assurance (PQA) students of AISSMS College of Pharmacy

Organized by : Dr. Santosh V. Gandhi, Professor, Dept. of Pharmaceutical Chemistry

Total number of Registered Students: 13

Detailed Description of Activity Organized: The expert lecture on High Performance Thin Layer Chromatography by Mr. Ankit Jadhav from Anchrom Enterprises (I) Pvt. Ltd., Mumbai was organized on 04/10/2023. He delivered details of HPTLC including advances and automation in HPTLC Instrumentation. This was followed by a Question & Answer session to solve queries by the students. This session was followed by a demonstration and Hands on Training Program (One-day) on the HPTLC instrument in the instrument room. The students were taught the Dos and Don'ts as well as trouble shooting in case of any problems. Both Software as well as Hardware related training was provided which helped build confidence in students for operations related to the HPTLC Instrument. Thirteen students from Pharmaceutical Quality Assurance department attended session and hands on training.

4. Guest Lecture

Topic: GPAT Guidance

Day and Date: 5/10/2023 (Thursday)

Time: 3 pm -5 pm

Organized for (student class/staff): TY B.Pharm students

Details of Speaker(s): Dr.Rajendra Patil, Professor, JSPM, Pune

Coordinator Names: Dr. M. C. Damle and Dr. T. S.Chitre (Guest Lecture Committee)

Description of Activity (Detail, Attendance, etc): Students were made aware of various competitive examinations for PG. Subjective details were given for study patterns for competitive Examinations like GPAT. Tricks to remember IUPAC names/ adverse effects of drugs/Types of questions/paper patterns were discussed.Students had a very interactive session.

Outcome: Students got information about Exams and guidance regarding examination study pattern for competitive Examination like GPAT.

"The expert in anything was once a beginner."
-Helen Hayes

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5. Blood Stem cell donation awareness day

Date: 11. 10. 2023

Time: 11.30 am -12.30 pm

Audience/Attended by: SYB.Pharm. Students

Organized by: Extension cell

Anchors: Dr.Trupti Chitre , Mrs. Janhavi Devkute and Mrs. Deepika Jagdale

Description: AISSMS College of Pharmacy, Pune has signed an MOU along with Datri, Stem cell Registry, India. The Registry Executive of Pune, Mrs. Sonali Bhandarkar created awareness regarding the foundation and its work and appealed to the students to be donors of blood stem cell for saving the lives of patients affected by fatal blood disorders and also cancer.

Outcome: 35 students have registered themselves as donors for the cause and their swabs were collected on the same day for further formalities.

"The man who does not read books has no advantage over the one who cannot read them."
-Mark Twain

6. IIPC lecture on "Applications of 3D printing in Pharmaceuticals"

Date: 8.11.2023

Time: 2.00-3.00 pm

Audience/Attended by: M. Pharm Students

Organized by: Dr. Mangesh Bhalekar and Dr. Rahul Padalkar

Anchors: Dr. Rahul Padalkar

Description: The lecture was organized by IIPC along with the Institutional Innovation Council.

In order to explore new technological avenues in the pharmaceutical industry, Industry Institute Partnership cell had organized an expert lecture on 3 D technologies. Dr Shital Zambad is a well known expert in this field. He discussed the basic aspects of 3-D printing, how it can be applied to various pharmaceutical dosage forms. He showed the video demonstration of 3 D printing machines and discussed some case studies.

Dr Zambad was felicitated with a memento of IIPC. The outcome was an increased awareness amongst students regarding applications of DSC tool.

Outcome / Usefulness: The session was useful for understanding the concept, technologies and applications of 3D printing in the pharmaceutical and healthcare industry.

The session was attended by 46 students and 3 faculty members.

Dr. Shital Zambad delivering a talk on "Applications of 3D printing in formulation"

Dr. Rahul Padalkar introducing the speaker

Dr. Mangesh Bhalekar presenting a memento to Dr. Shital Zambad.

7. Random Blood Sugar testing Camp on account of World Diabetes Day November 2023.

Date: 29.11. 2023 (Wednesday)

Time: 11.00 am to 1.00 pm

Audience/Attended by: PMC cleaning workers in Shinde Koti, Saraswat Colony, near Pune Station/FY and SY Students

Organized by: Extension cell

Anchors: Dr.Trupti Chitre , Mrs. Janhavi Devkute and Mrs. Deepika Jagadale

"You are never too old to set another goal or to dream a new dream"
-C. S. Lewis

Description: On the 29th November 2023, AISSMS College of Pharmacy has successfully conducted a Random Blood Sugar Checking Camp for PMC workers at Dhole Patil Road, Prabhag No. 20, Somwarpeth,Barke Aali, Aarogya Koti, Pune Mahanagar Palika.

The Programme was organized as a part of World Diabetes Day awareness month by the Extension cell of AISSMS College of Pharmacy under the guidance of Principal, Dr. Ashwini R.Madgulkar. A total of 20 S.Y.B.Pharm students were present.

All the PMC workers of the Koti as well as nearby residents enthusiastically participated in the blood sugar checking. Mr. Nikhil Shendge, Aarogya Nirikshak was present along with other PMC staff members. A total of 50 people got their blood sugar level checked. The organization of the camp was as per valuable suggestions received from Mr. Arvind Shinde, Adhyaksha, Pune Shahar, Jilha Congress Committee.

Outcome: Our students could visit slum area and came to know about the working pattern of employees and also they volunteered during the entire activity.

8. Book Donation Activity as a part of Vachan Prerana Din 2023

Date: 01.12. 2023 (Friday)

Time: - 11.00 am to 1.00 pm.

Audience/Attended by: B.Pharm/ M.Pharm students

Organized by: Extension cell with Library

Anchors: Dr.Trupti S.Chitre, Mrs. Shobha Jadhav

Description: Informative/Story/Autobiographies etc. type of Books were collected from students as a part of Vachan Prerana Din 2023 activity and also books were purchased for donation by college. All the books (collected and purchased) were donated to Samta Balak Mandir, Yerawada Pune. This activity was done in collaboration with Ms.Babita Sanas, President, Nayee Udaan.

Dr Shital Zambad delivering a talk on "Applications of 3D printing in formulation"

Outcome: Our students could understand the importance of donation of books to children who are underprivileged.

9. IIPC lecture on "Applications of DSC in Pharmaceuticals"

Date: 18.12.2023

Time: 2.00pm -3.00 pm.

Audience/Attended by: All M Pharm students.

Organized by: Dr. Mangesh Bhalekar and Dr. Rahul Padalkar

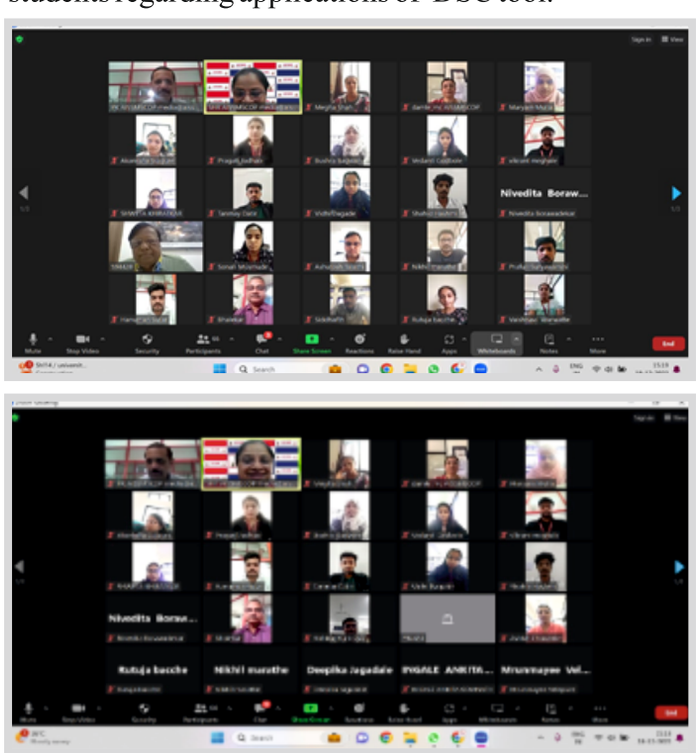
Anchors: Dr. Mangesh Bhalekar

Description: The lecture was organized by IIPC along with the Institutional Innovation Council.

The lecture was aimed at making students understand and interpret the DSC thermograms and it served the purpose to the fullest. The lecture was received well by students as well as faculty members and contents as well as delivery was appreciated.

About 78 participants from college including students and staff participated.

The outcome was increased awareness amongst students regarding applications of DSC tool.



Screenshot of Participants and speaker during webinar on "Applications of DSC in pharmaceuticals" Organized by Industry Institute Partnership Cell, AISSMS college of Pharmacy.

10. FDP for AISSMS COP Teachers

Date: 06.12.2022

Time: 10.30 am to 5 pm.

Organized for : AISSMS COP Teachers

No of Participants: Staff:-35

Coordinator Names: Dr. M.C.Damle, Dr. T.S. Chitre and Mrs. Megha Shah

Trainer Name: Manasi Karanjkar and Mrs.Vinaya (facilitator), from IHHI, Pune.

Description of Activity:AISSMS College of Pharmacy had organized FDP for Teachers through trainer from IHHI, Pune

Time: Session 1:- 10.30 am to 1 pm, Session 2:- 1.30 pm to 4.45 pm, Lunch Venue: Old Library

The topics chosen were:

- Mentoring and Counseling
- Self-worth
- Tools of Motivation
- Emotional Management

Throughout the day, in two sessions, the trainer explained elaborately through various examples the importance of above mentioned topics. Various activities and game tactics were given to understand the topics

All faculty members and Principal madam during FDP by IHHI along with Manasi Karanjkar and Mrs Vinaya from IHHI

Outcome/Usefulness: The FDP would help the faculty members for their personal/professional growth and ultimately growth of the institution.

Upcoming News

- **Tree Plantation**
- **Skill Development Program**
- **Nss Camp**
- **Npw Prize Distribution**
- **Alumni Meet**
- **Ranagan-sports Week**
- **Srujan-cultural Days**

News and Events (Oct- Dec 2023):

Student's Achievements

- ✓ Pratik Hulsurkar and Shrawani Nighot got the 2nd rank in the Group Discussion which was organized by Modern College Of Pharmacy under the guidance of Mrs. Amruta Avalaskar.

- ✓ Sanchi Jadhav from T. Y. B. Pharm. bagged the first rank in elocution in YIN competition which was held on 28th October at AISSMS Institute of Technology.
- ✓ Final year B.Pharm students- Sweta Singh, Dhanashree Bhalerao, Pooja Salgar, Ishwari Sapkal, andMansi Gaikwad under the guidance of Mrs K.D Asgaonkar and Mrs S.M Patil won First prize (UG category) in Oral presentation competition at 4th Student research congress organized by Dr Bhanuben Nanavati College of Pharmacy ,co hosted by Univ of Mumbai and Industry partner ACG world and scitech 8th -9th Dec 2023
- ✓ Final year B.Pharm students- Rajas Sheth, Mansi Prabhune, Vaishnavi Shitole, Vrushali Sabale, and Prachi Thombre under the guidance of Mrs K.D Asgaonkar and Mrs S.M Patil won Third prize (UG category) in Oral presentation competition at 4th Student research congress organized by Dr Bhanuben Nanavati College of Pharmacy, co hosted by Univ of Mumbai and Industry partner ACG world and scitech 8th -9th Dec 2023
- ✓ M.Pharm student Akshata Naik andPiyush Nikalje under the guidance of Mrs K.D Asgaonkar and Mrs S.M Patil won Second prize (PG category) in Oral presentation competition at 4th Student research congress organized by Dr Bhanuben Nanavati College of Pharmacy ,co hosted by Univ of Mumbai and Industry partner ACG world and scitech 8th -9thDec 2023

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Did You Know:

PHARMACOVIGILANCE

INTRODUCTION:

During every stage of a drug's life cycle, monitoring for safety is an ongoing, dynamic activity. Safety is examined at several stages of the medication development process. Finding a safe human dose and safety parameters for clinical monitoring are the main objectives of safety evaluation in preclinical research. Phase I studies in the clinical phase are intended to estimate the tolerability of the dose range expected to be needed for later clinical studies in healthy volunteers. Phase II studies are concerned with determining the appropriate range of drug doses in patients with a disease or condition of interest; phase III clinical trials are the most significant studies to refine understanding of the benefit-risk profile of the drug and to identify less common adverse drug reactions.

PHARMACOVIGILANCE IN HEALTHCARE EMERGENCY:

During the first wave of the pandemic, when there were no COVID-19 vaccinations or treatments available, drugs that were already approved for other purposes were hastily repurposed. As a result, numerous drugs—including azithromycin, ivermectin, and hydroxychloroquine—were prescribed to COVID-19 patients without a prescription, even though the underlying scientific data for these drugs' advantages was mostly from low-quality in vitro studies.

DATABASE NETWORKS FOR POST-MARKETING SURVEILLANCE FOR VACCINES AND MEDICINES:

Access to large-scale distributed database networks is expanding, creating new opportunities for producing empirical data to support decision-making and for tracking the safety of drugs and vaccines after they are put on the market. With this objective in mind, the FDA launched the Sentinel Initiative in May 2008. It is an infrastructure that assesses the safety of approved medicinal products by analyzing electronic healthcare data. Sentinel has established one of the most extensive distributed database networks available for assessing the safety of medicinal products to date. It is made up of the Sentinel System, which uses standard data models and analytical tools to examine pre-existing real-world data, and the FDACatalyst, which uses routine queries and interactions with health plan members and/or providers.

ARTIFICIAL INTELLIGENCE IN PHARMACOVIGILANCE:

The past few years have seen a steady increase in the availability of patient-derived data, and this trend is anticipated to continue in the near future as a result of broad marketing of digital technology for data gathering. Large-scale digital data sets present an opportunity to apply artificial intelligence (AI) techniques to improve the assessment of drug safety. Information extraction has been gaining interest in the field of clinical research. It leverages text mining and natural language processing (NLP) techniques to extract relevant insights from easily accessible, primarily unstructured sources. Text mining and natural language processing methods can be very useful in pharmacovigilance for gathering information on drug-drug interactions and adverse drug reactions (ADRs) from a range of textual sources. Researchers and doctors can then use this information to keep an eye on pharmaceutical safety.

SAFETY MONITORING OF DIGITAL THERAPEUTICS:

Digital therapeutics (DTx) is one of the newest fields of medicine. It is defined as "technologies that deliver medical interventions directly to patients using evidence-based, clinically evaluated software to treat, manage, and prevent a broad spectrum of diseases and disorders". As DTx is being used in clinical settings more often than traditional pharmaceuticals, proper postmarketing surveillance of DTx needs to be implemented in order to promptly identify any potential safety signals and ascertain the safety profile of these technologies. Generally speaking, DTx side effects could be less severe and easier to handle than those caused by conventional drugs. However, pivotal trial data indicate that DTx adverse effects may be more frequent than in the matching control groups, requiring careful post-marketing monitoring.

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PHARMACOVIGILANCE OF ADVANCED THERAPY MEDICINAL PRODUCTS:

Advanced therapy medicinal products (ATMPs) are human pharmaceuticals derived from genes, cells, or tissue engineering (European Medicines Agency, 2021). ATMPs present new opportunities for physiological process restoration, modification, or alteration, as well as for medical condition diagnosis. Because of their high degree of innovation, these drugs usually undergo accelerated review and approval procedures; this highlights the need to generate post-marketing data about their benefit-risk balance. However, there is still a great deal of uncertainty regarding the safety profile of novel ATMPs that cannot be explained by regulatory processes alone. Clinical trials have intrinsic limitations, such as low patient recruitment numbers, the use of surrogate endpoints, and single-arm designs, which sometimes result in a lack of premarketing evidence for these drugs, which often target rare illnesses.

ECO PHARMACOVIGILANCE:

Ecopharmacovigilance is defined as the "detection, assessment, understanding, and prevention of adverse effects or other problems related to the presence of pharmaceuticals in the environment, which affect both human and the other animal species" (Velo and Moretti 2010). In order to reduce the likelihood of pharmaceutical pollutants finding their way into the environment, ecopharmacovigilance is a critical modern concern. In actuality, pharmaceuticals are typical environmental pollutants that can enter the environment through a number of different openings, such as the patient excreting the drug or its active metabolites via the sewer system, hospitals or manufacturers releasing the medication into waste waters, and terrestrial depositions (Holm et al., 2013). Several studies have demonstrated the impact of pharmaceutical contamination on a wide range of animal species, such as vultures and fish (Wang et al., 2017). Ecopharmacovigilance is becoming a more important tool for reducing and regulating pharmaceutical pollution sources because it helps identify, assess, and prevent the unfavorable effects of pharmaceutical presence in the environment.

Scope of Pharmacy:

What is cGMP in pharma industry?

Understanding Current Good Manufacturing Practice (cGMP) in the pharmaceutical industry can, at first, seem like trying to pick up a handful of water. It's a broad concept that is hard to hold together.The FDA currently offers 34 distinct final guidance documents for cGMP in the pharmaceutical industry, which include requirements for process validation, data integrity, quality metrics, and countless other topics.The FDA's definition of cGMP is accurate. The information included in a final guidance document, which typically ranges from 10-30 pages long, is comprehensive but that doesn't mean it's clear. Reading cGMP guidelines provided by the regulatory agency can leave you with a lot of questions. If you're wondering why "current" good manufacturing practices and why "quality by design" matters, you're not alone. In this post, we'll cover the official definition for these essential guidelines in terms you can understand with insights from pharma industry experts. Read on for some extra color and context on the definition of what cGMP is, why it's important, and how to achieve compliance in your organization.

Current good manufacturing practices are defined by the FDA as systems to assure proper design, monitoring, and control over manufacturing processes and facilities in pharma and other FDA-regulated industries. These systems are designed to help organizations assure drug products are the correct identity, strength, purity, and quality.cGMP systems include a series of controls for quality focused operations, including:

- Management systems
- Quality raw materials
- Operating procedures
- Detecting deviations
- Investigating deviations
- Reliable testing

“The mind is not a vessel to be filled but a fire to be ignited.”
- Plutarch

If current good manufacturing practice is followed, organizations can avoid many of the most common causes of quality failure which threaten patient safety, such as drug contamination, deviations, or mix-ups. The FDA is very clear that current good manufacturing practices are designed for flexibility to provide a universal framework for the entire pharmaceutical industry. Also, the guidelines aren't a checklist; they're a set of "minimum requirements" for total quality management.

The latest cGMP was published in 2016, the Q7 Good Manufacturing Practice Guidance for Active Pharmaceutical Ingredients. This 58-page document provided some excellent updates to prior cGMP for the industry, but it also sparked more questions than it answered in the eyes of many pharmaceutical organizations. The FDA followed up with a Q&A in 2018 to clarify some of the most common questions about the latest guidance. Some of these questions are addressed here, with insights from pharma industry subject matter experts.

Why current GMP?

The "c" stands for "current," reminding manufacturers that they must employ technologies and systems which are up-to-date to comply with the regulation. Systems and equipment used to prevent contamination, mixups, and errors, which may have been first-rate 20 years ago may be less than adequate by current standards.

The FDA publishes systems for current good manufacturing practices to emphasize the need for flexibility in total quality management. Organizations can't afford to adopt a rigid, guidelines-focused approach to total quality management (TQM), or they'll struggle to adapt when the next set of cGMP is released, or any other issue occurs which requires organizational change.

"The journey of a thousand miles begins with one step."
-Lao Tzu

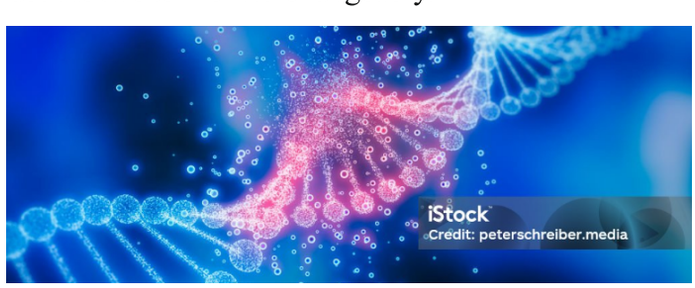
Scientific Content:

PRECISION MEDICINE:

According to the Precision Medicine Initiative, precision medicine is "an emerging approach for disease treatment and prevention that takes into account individual variability in genes, environment, and lifestyle for each person." This approach will allow doctors and researchers to predict more accurately which treatment and prevention strategies for a particular disease will work in which groups of people. It is in contrast to a one-size-fits-all approach, in which disease treatment and prevention strategies are developed for the average person, with less consideration for the differences between individuals.

Although the term "precision medicine" is relatively new, the concept has been a part of the healthcare for many years. For example, a person who needs a blood transfusion is not given blood from a randomly selected donor; instead, the donor's blood type is matched to the recipient to reduce the risk of complications. Although examples can be found in several areas of medicine, the role of precision medicine in day-to-day healthcare is relatively limited. Researchers hope that this approach will expand to many areas of health and healthcare in coming years.

There is a lot of overlap between the terms "precision medicine" and "personalized medicine." According to the National Research Council, "personalized medicine" is an older term with a meaning similar to "precision medicine." However, there was concern that the word "personalized" could be misinterpreted to imply that treatments and preventions are being developed uniquely for each individual; in precision medicine, the focus is on identifying which approaches will be effective for which patients based on genetic, environmental, and lifestyle factors. The Council therefore preferred the term "precision medicine" to "personalized medicine." However, some people still use the two terms interchangeably.



Potential benefits of the Precision Medicine Initiative:

- New approaches for protecting research participants, particularly patients' privacy and the confidentiality of their data.
- Design of new tools for building, analyzing, and sharing large sets of medical data.
- Improvement of FDA oversight of tests, drugs, and other technologies to support innovation while ensuring that these products are safe and effective.
- New partnerships of scientists in a wide range of specialties, as well as people from the patient advocacy community, universities, pharmaceutical companies, and others.
- Opportunity for a million people to contribute to the advancement of scientific research.

Precision medicine is a growing field. Many of the technologies that are needed to meet the goals of the Precision Medicine Initiative have only recently been developed. For example, researchers needed to standardize the collection of clinic and hospital data from more than 1 million volunteers around the country. They also needed databases to store large amounts of patient data efficiently.

The Precision Medicine Initiative also raises ethical, social, and legal issues. It is critical to protect participants' privacy and the confidentiality of their personal and health information. Participants need to understand the risks and benefits of participating in research, which means researchers must have a rigorous process of informed consent.

Cost is also an issue with precision medicine. The Precision Medicine Initiative itself will cost many millions of dollars in federal funding, and the ongoing initiative will require Congress to approve funding over multiple years. Technologies such as sequencing large amounts of DNA are expensive to carry out (although the cost of sequencing is decreasing). Additionally, drugs that are developed to treat conditions based on molecular or genetic variations are likely to be expensive. Reimbursement from third-party payers (such as private insurance companies) for these targeted drugs is also likely to become an issue.

Websites and Contact Details:
https://medlineplus.gov/

Theme:

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