

COUNTER-TERRORISM POLICY

Counter-terrorism (CT) policy refers to the strategies, measures, and actions a government or international body employs to prevent, combat, and mitigate the effects of terrorism. The main goal of a counter-terrorism policy is to protect citizens, safeguard national security, and maintain social order by addressing both the root causes and immediate threats posed by terrorist activities. Effective CT policies incorporate a combination of law enforcement, intelligence, diplomatic, military, and socio-economic measures to address terrorism in a comprehensive manner.

Preventing radicalization is at the core of any robust counter-terrorism policy. Radicalization is the process by which individuals or groups adopt extremist ideologies, often leading to violence. Preventive measures include educational programs, community outreach, and the promotion of social integration to counter the appeal of terrorist ideologies. Governments often collaborate with local communities, religious leaders, and civil society organizations to identify at-risk individuals and offer alternative narratives to extremist ideologies.

In addition, online platforms where extremist content is proliferated have become a major focus. Governments and tech companies work together to remove online extremist propaganda, disrupt recruitment efforts, and prevent the spread of harmful content through digital platforms. The use of social media by terrorist organizations to incite violence and recruit new members demands urgent countermeasures, including better regulation of internet spaces and targeted counter-narratives.

Intelligence gathering plays a crucial role in counter-terrorism efforts. A robust intelligence apparatus helps to identify, track, and dismantle terrorist cells and individuals who pose a threat to national security. Intelligence agencies gather information through human intelligence (HUMINT), signals intelligence (SIGINT), and cyber intelligence (CYBINT) to uncover terrorist activities, networks, and financing.

Collaboration between national and international intelligence agencies is vital for disrupting cross-border terrorism. Sharing intelligence on terrorist activities and trends with allies strengthens the global counter-terrorism response and enhances the ability to preempt terrorist actions.

Modern surveillance tools, including facial recognition software, social media monitoring, and wiretapping, also support intelligence operations. However, these measures must balance security needs with the protection of civil liberties and privacy rights, avoiding abuses such as unlawful surveillance or discrimination against specific communities. A strong legal framework is essential for prosecuting terrorists and preventing attacks. Counter-terrorism laws must enable law enforcement agencies to act swiftly while upholding the principles of justice and human rights.

Radiation safety in Radiology-Time has come to see the unseen

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INTRODUCTION

Radiations are not visualized through the human vision. Only their effects are seen. The field of radiology was born on November 8, 1895, when Wilhelm Conrad Roentgen discovered X-rays, a form of electromagnetic radiation. At that time, the safety limits for X-ray exposure were unknown, and many individuals, often referred to as "X-ray martyrs," risked their lives to establish the threshold between safe and harmful radiation levels. Over the years, technological advancements have significantly reduced exposure times from seconds to mere milliseconds, and radiation doses have been minimized to well within safe limits.

THE BIOLOGICAL EFFECTS OF RADIATION

X-rays have the power to ionize atoms and molecules through which they pass. These are being used for diagnostic and therapeutic purposes. In the radiology department, most of the equipment, such as CT scans, fluoroscopy, X-rays, digital subtraction angiography, etc., uses X-rays. Exposure to X-rays can lead to two major types of biological effects: stochastic effects and deterministic effects.

Stochastic Effects: These effects are probabilistic, meaning that the likelihood of their occurrence increases with the dose, but their severity is independent of the dose received. Importantly, stochastic effects do not have a threshold; any exposure to ionizing radiation, no matter how small, carries some risk. The Linear No-Threshold (LNT) model is the accepted framework that suggests that the risk of harm from ionizing radiation is directly proportional to the dose received. As such, even low doses can pose a risk, with the potential for harm increasing as the dose rises. These effects are further divided into the following-

► Somatic effects, which are not transferred to the next generation, e.g., leukemia, thyroid cancer, etc.

► Genetic effects are transferred to the next generation because these effects cause gene mutations and change the genetic makeup of an individual, e.g., Down syndrome, BRCA1 and BRCA2 gene mutations, etc.

► Foetal effects: overexposure to radiation can cause congenital malformations.

Deterministic effects: The effects result after a threshold dose of radiation exposure but are not transferred to the next generation, e.g., hair loss, cataracts, skin redness, etc.

RADIATION EXPOSURE DURING PREGNANCY

Radiation exposure during pregnancy is a critical concern in radiological practice. According to guidelines established by the American College of Radiology (ACR) and the American College of Obstetricians and Gynecologists (ACOG), diagnostic radiological procedures generally do not pose a significant risk to the developing embryo or fetus that is risks of fetal malformations are negligible with radiation exposure up to 5 rads (50 mGy), while the risk of malformations rises significantly for exposures exceeding 15 rads. Therefore, it is essential for women to be counseled that exposure to radiation from a single diagnostic procedure does not typically result in harmful fetal effects and that exposure below 5 rads has not been associated with an increased incidence of fetal anomalies or pregnancy loss.

ENSURING RADIATION SAFETY IN PREGNANT WOMEN

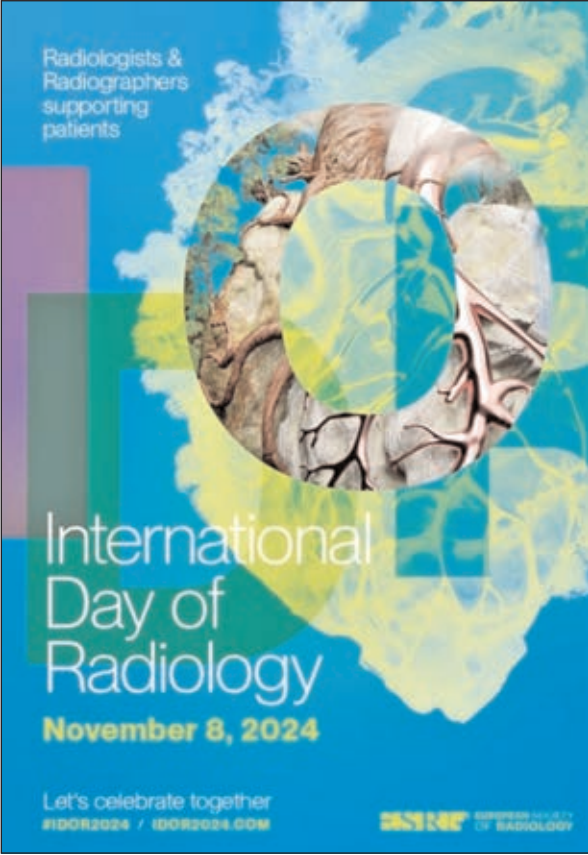
One of the most important steps in minimizing radiation exposure during pregnancy is obtaining a thorough Last Menstrual Period (LMP) history from every woman of reproductive age prior to conducting X-ray examinations. Pregnancy is typically dated from the first day of

a woman's last menstrual period. In women with regular menstrual cycles, ovulation occurs around day 14, and conception generally occurs about two weeks after the LMP .The 10-Day Rule, as endorsed by the International Commission on Radiological Protection (ICRP), was introduced to minimize the risk of radiation exposure to the conceptus. This rule recommends performing abdominal and pelvic X-ray examinations only within the first 10 days following the onset of menstruation, a period during which there is no significant risk to the embryo. Radiological examinations involving the pelvic or abdominal regions should be avoided beyond 10 days post-LMP unless absolutely necessary[9]. Women of reproductive age should always be asked about their pregnancy status, and the LMP date should be documented on the requisition form. If a woman presents for an X-ray examination with a negative pregnancy history but has surpassed 28 days post-LMP, a pregnancy test is to be conducted before proceeding with the examination. For X-ray examinations of areas outside the abdomen and pelvis, appropriate fetal shielding (e.g., lead aprons) is always employed to reduce exposure.

RADIATION SAFETY FOR RADIOLOGICAL WORKERS

Radiation safety practices also extend to healthcare workers who are regularly exposed to ionizing radiation. Strict adherence to safety protocols is crucial to minimizing occupational exposure. Measures such as personal protective equipment (PPE),

including lead aprons and radiation shielding, along with routine dosimetry monitoring, are essential to protect radiologists, technologists, and other personnel from the harmful effects of ionizing radiation. No individual under the age of 16 should be permitted to work with radiation under any circumstances. Individuals below the age of 16 years should in no case be allowed to work



with radiation.

ENSURING RADIATION SAFETY IN PATIENTS

► Adhere to the ALARA Principle, which stands for As Low As Reasonably Achievable.

► Every radiologic procedure involving ionizing radiation must be clinically justified.

► Even for justified procedures, radiation doses should be minimized upto obtaining sufficient image quality.

► In certain high-dose procedures, such as fluoroscopy procedures, strict dose limits should be enforced.

► Appropriate selection of imaging modalities like ultrasound or MRI might be preferable wherever possible as they do not use ionizing radiation.

► Use of advanced technologies and quality control techniques.

CONCLUSION:

While human eyes are unable to perceive radiation, such as X-rays, we can observe and assess their effects. Through advancements in modern technology and adherence to established protocols, we are capable of effectively managing and modifying these effects for clinical benefit. By optimizing radiation use, limiting unnecessary investigations, and incorporating alternative diagnostic and therapeutic approaches when appropriate, we can ensure the safe and responsible application of radiation in medical practice.

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The Dark Side of Convenience: Protecting Yourself from Mobile Payment Scams

■ PANKAJ SHARMA

In today's digital world, mobile payment apps such as Paytm, PhonePe, GPay and have revolutionized how we handle transactions. They allow for fast, convenient, and seamless payments, making it easy to pay bills, split checks, and send money to friends and family with just a tap. However, the convenience of mobile payments has also attracted scammers who exploit these platforms' vulnerabilities to deceive users and steal money or personal information. Understanding how mobile payment scams work and learning how to stay safe are essential steps to protecting yourself from potential losses.

Common Types of Mobile Payment Scams

Mobile payment scams come in several forms, each tailored to exploit specific behaviors and technological vulnerabilities. One of the most common scams is phishing via SMS or email-often called "smishing." In this type of scam, users receive texts or emails that appear to be from legitimate sources, like payment apps or banks, urging them to click on a link to resolve an issue with their account. However, these links lead to fake websites designed to steal login credentials or personal information.

Another increasingly common tactic is the fake customer support scam, where scammers pose as customer service representatives from payment platforms. They may contact users on social media or by phone, claiming there's a problem with their account and requesting their login details to "resolve" it. Then there

are QR code scams, where fake QR codes are distributed online, through posters, or even in stores, which, when scanned, lead unsuspecting users to phishing websites or initiate unauthorized payments.

Some scammers take advantage of users' goodwill with fraudulent payment requests. They may send a small payment with a message claiming it was sent by accident, then ask for it to be returned. Once the user sends money back, they realize the original payment was never genuine. Another type is the payment reversal scam, where scammers pay for goods or services and later request a refund through the app, claiming a false reason. In these cases, they often get their money back while still keeping the items they "purchased."

Warning Signs of Mobile Payment Scams

Recognizing the red flags associated with mobile payment scams can be instrumental in avoiding them. Unsolicited messages from unknown sources, especially those asking for personal or payment information, should always be treated with caution. Scammers often create a sense of urgency in their messages, claiming that immediate action is needed to avoid an account lockout or a significant financial loss. This pressure tactic is a classic red flag.

Be cautious with unexpected payment requests or requests to refund a payment sent in error, as these are common tricks used by scammers. Additionally, suspicious links and QR codes are a major warning sign. Avoid clicking links or scanning QR codes from

unknown sources, especially those sent through unsolicited messages, as they may lead you to phishing sites.

How to Protect Yourself from Mobile Payment Scams

Protecting yourself from mobile payment scams doesn't have to be complicated. Start by enabling two-factor authentication (2FA) on all your payment apps. 2FA adds an extra layer of security, requiring a second verification step, such as a code sent to your phone, to confirm your identity. This can help prevent unauthorized access to your account, even if someone obtains your password.

Make sure you're only using trusted apps downloaded from official app stores, and keep these apps updated to benefit from the latest security patches. Avoid using public Wi-Fi for transactions, as these networks are vulnerable to interception by hackers. Instead, opt for a secure, private internet connection when making payments or handling sensitive information.

For added safety, set up payment notifications for all transactions, so you're instantly alerted to any unauthorized activity. Many apps allow you to receive push notifications or emails for each transaction, making it easier to catch suspicious activity early. Also, lock your phone and consider using a password or biometric lock for your payment apps to prevent unauthorized access in case your phone is lost or stolen.

What to Do if You Fall Victim to a Mobile Payment Scam

If you suspect that you've fallen victim to a mobile payment scam, act quickly to minimize the damage. Report the unauthorized transaction immediately to the payment app's customer support team. Many apps have dedicated fraud departments that can assist in investigating the incident and potentially reversing the transaction.

In addition, contact your bank or financial institution if your bank account is linked to the payment app. They may be able to help secure your funds and protect your account from further fraudulent activity. Be sure to change your login credentials, including any passwords associated with your accounts, and consider updating your security settings to further safeguard your accounts.

The rise of mobile payment technology has made daily transactions simpler, but it's also opened the door to new types of scams. Being aware of the tactics scammers use, such as phishing, fake customer support requests, and fraudulent payment requests, can help you spot potential scams and protect yourself. By enabling security features, avoiding public Wi-Fi for transactions, and being cautious of unexpected messages or payment requests, you can make your mobile payment experience safer. Staying informed and vigilant is the best defense against mobile payment scams, ensuring that the convenience of mobile payments remains a secure part of modern life.

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5 thoughts will help you to be stable each day

■ MOHANJI



These 5 thoughts will help you to be stable each day. These words if repeated will increase your self-belief and self-confidence.

Try repeating these 5 times when you get up every morning.

1. I am truly fine and I am perfect as I am. I have no comparisons, no competitions.

2. Guru and God are with me always.

3. Yes. I can do it. I am capable enough.

4. Yes. I am successful and I will always be successful even amidst temporary failures.

5. Today is my day. This day is my opportunity. I will achieve as per my best potential today. And I will not waste any moment, and I will not wait for anyone's support, approval or appreciation.

This along with a few more.

1. I dare failures. Failures have always strengthened me and my resolution to succeed.

2. I have no enemies. I have no time to waste on enmities.

3. I have no insecurities. Time has given me an abundance of strength and will always give.

4. I value friendships. I shall never let down or let go of those who love me and shall give my best in honor of their love for me.

5. I shall lead a life of discipline and determination and shall never be bogged down by people's behavior or betrayals. I shall never be bound by my past and I shall always be respectful towards life and will lead a life of gratitude and lightness.

The Future of AI Technology in Education

■ MOHAMMAD HANIEF



Artificial Intelligence (AI) is reshaping the world around us, including the ways of learning about it. Traditionally, education has followed a one-size-fits-all approach, where students are taught the same curriculum at the same pace. However, this model often fails to cater to students' needs and learning styles.

AI in education is increasingly being used to personalise learning experiences for students. It provides tailored educational content based on their skills, interests, and learning styles. AI analyses student performance data and identifies patterns of learning difficulties or gaps in understanding.

Adaptive platforms use AI and ML (machine learning) algorithms to assess vast amounts of student performance data. The information helps evaluate their strengths and weaknesses. AI combines the details with individual needs, preferences, and learning styles to create customised learning paths.

For instance, if a student excels in a particular subject, the platform may skip over basic lessons and move on to more advanced content. Similarly, if a student struggles with a concept, the platform can provide additional resources and adjust the pace to suit their learning needs.

Adaptive platforms also consider stu-

dents' learning styles, such as visual or auditory learners. It delivers content in a way that is most effective for a learner. A personalised approach to learning helps students to learn better and keeps them motivated.

One-size-fits-all learning methods can be frustrating for students as they learn differently. It leads to a lack of engagement and motivation as students may not find the material relevant or interesting. Students often need extra help on some topics to keep up with the rest of the class.

Artificial Intelligence in education caters to each student's needs and adapts to their unique learning styles. It helps students learn at their own pace by identifying when a student is ready to move on to more advanced concepts. ML algorithm analyses their understanding and offers extra practice or reinforcement to ensure concept clarity. It helps improve their understanding and retention of the material.

AI personalises learning experiences to motivate students. They are more invested in the learning material tailored to their interests and needs. Students learn at different speeds. Adaptive platforms adjust the pace of learning according to a student's needs. It ensures the learner is not left behind or rushed through the material. It offers more straightforward explanations on areas where they need more support and moves ahead to more challenging material when they excel.

Different learning styles require different approaches to learning. AI caters to individual needs and preferences, delivering content in a way that is most effective for each student. It switches between visual and auditory learning, interactive activities, and lectures.

AI helps identify student performance gaps and offers additional resources to reinforce learning. It leads to improved comprehension and retention of material. Adaptive platforms use speech recognition software, text-to-speech programs, and NLP (natural language processing) to answer student questions and clarify doubts. It ensures students clearly understand the material before moving on to the next concept.

AI in education benefits not only students but also educators. Educators integrate it into different aspects such as teaching methods, assessment tools, curriculum development and personalised learning experiences. It automates administrative tasks, provides data-driven insights, and assists in creating personalised lesson plans.

With AI, teachers can analyse the strengths and weaknesses of each student without bias. It offers significant insights into the learning pattern, assisting teachers in providing suitable learning materials. Besides reducing workload, AI in education also helps improve the efficiency of the curriculum using data from student learning patterns.

Grading assignments, tracking atten-

dance, and creating schedules is time-consuming. AI in education helps automate these tasks. It frees up time for teachers to focus on teaching and providing individual student support. Data-driven insights allow teachers to identify areas where students need more help and tailor their lesson plans accordingly. It saves teachers time in creating individualised plans for each student.

AI can analyse vast amounts of student data and share insights into their performance. It highlights areas that need more emphasis and allows educators to customise the curriculum and cater to the needs of students. AI-based assessment tools can provide quick and accurate feedback on student performance. It eliminates human bias in grading, ensuring a more inclusive learning environment. Educators can identify areas for improvement from the detailed evaluation results and adapt their teaching strategies.

With AI handling administrative tasks, teachers can focus on more critical tasks that need human interaction. They can improve their lesson planning and delivery. It creates a better work-life balance for educators. The advancement of technology has driven innovation in education. AI in education can process vast amounts of data and mimic human-like decision-making processes. AI-driven educational tools enhance the learning experience by providing personalised, accessible, and engaging con-

tent for students.

Virtual tutors are intelligent systems that use NLP and ML algorithms to interact with students conversationally. They provide personalised learning experiences. Virtual tutors can adapt to individual student's pace, style, and preferences, making the learning process more engaging and effective.

Intelligent content recommendation tools leverage data analytics and algorithms to recommend relevant learning material to students. The recommendations are based on their learning styles, interests, and progress. It saves time for students in searching for appropriate resources and exposes them to diverse perspectives.

Traditional assessment methods can be time-consuming and lack real-time feedback. AI-powered automated assessment systems aim to address these challenges using algorithms to evaluate students' performance in real time. It identifies knowledge gaps and provides targeted feedback to help the students improve their understanding of a particular topic.

Gamification applies game design elements in non-gaming contexts. It has become an effective way to engage students in learning activities. AI-powered gamified learning platforms use data and analytics to create personalised challenges, avatars, and rewards. It motivates students to learn while improving their skills.

Chatbots are AI-powered computer

programs that can be used in education to interact with students conversationally. It uses NLP to answer course content, assignments, and deadline queries. Chatbots allow educators to attend to more complex questions and clarify doubts. Students benefit from the convenience of 24/7 availability and personalised responses.

Intelligent tutoring systems (ITS) combine AI, cognitive psychology, and education theory to create adaptive learning environments. It combines AI, NLP, ML, and data mining techniques to provide personalised learning. ITS uses data from student interactions, such as their answers to questions, time spent on tasks, and errors made, to identify their strengths and weaknesses. It assesses the student's knowledge and skills to provide personalised feedback.

AI will transform education by personalising learning experiences and enhancing teaching practices. It addresses various challenges faced by the education sector. It promises equal opportunities for all students through inclusive and accessible education globally.

However, responsible use of AI in education is crucial to ensure ethical considerations are met, accessibility is prioritised, and students' rights are protected. Harnessing the full potential of AI in education requires continuous research and monitoring to ensure its effectiveness and sustainability.

