by different mental states like

intention, recklessness, negligence,

etc. Therefore negligence is a form

criminal responsibility, even in

the absence of intention. If the

finds negligent act, from that

a negligent mental state while

colliding.

of mental state sufficient to impose

court under a section 304A charge

instance alone the court can infer

determining the issue of guilty act

and guilty mind simultaneously

At the same time, lawmakers

sufficient clarification. As outlined

drawbacks. In clinical negligence

above, section 304A does have some

cases, various aspects of the Code of

Criminal Procedure 1898 and the

Evidence Act 1872 need to be

revised after consulting the legal

concerns the most is the power of

police to investigate in such cases

dealing with the aspect of clinical

appropriate. However, before such

field should properly be consulted.

This area of law has got a vast

family may file compensation suit in

Developing compensation culture

whereby the same requires vast

concerned field. A special law

negligence would be more

enactment, if any, legal and

medical experts working in the

civil dimension having its base

primarily on tort law. The victim's

civil courts against the defendants

liable for negligent treatment.

medical knowledge in the

experts. One major aspect that

should address the issue with



CLINICAL NEGLIGENCE seeming weapon?

Developing compensation culture is important as that would do proper justice for the family members who might have spent huge money behind a supposed negligent treatment. Again if the deceased victim is the only wage earner of the family, paying off damages to the family becomes important

under tort law.

BARRISTER KHAN KHALID ADNAN

EATH of patients caused by allegedly negligent treatment by doctors and hospitals has become common for quite some time in Bangladesh. This remains a very sensitive area as the medical profession is highly valued in our society. Nevertheless, if the allegations are true, wrong treatment procedure adopted by some incompetent medical professionals are causing sufferings, and even death, of the patients. As our Constitution ensures equality of all citizens in the eye of law, time has come to look into the related provisions of laws that regulate this specific

Section 304A of the Penal Code 1860 states that whoever causes the death of any person by doing any rash or negligent act not amounting to culpable homicide shall be punished with imprisonment of either description for a term which may extend to five years, or with fine, or with both.

The problem is "negligence" is not defined in the Penal Code, the same being a tortuous concept. Unfortunately, the law of tort is significantly underdeveloped in our legal system. The problem thus remains a live one. However, tackling this issue is not difficult both in theory and in practice as negligence has largely been defined in many jurisdictions including that of the UK and India. Hence the meaning of

negligence is quite settled with precision and that substance can easily be adopted in our legal system without any debate. Three main things become

important in these clinical negligence cases. Firstly, the medical professionals must owe a duty towards the patient. This is not at all difficult the relationship being a contractual one between the doctors and the patients as fees and charges for treatment are there. This is clearly a contractual duty of care. Secondly, that duty must be breached by the doctors. This is a matter to be proved during the trial. It would have to be shown by the patient that the practice adopted by the doctor is not one commonly adopted by a professional/competent peer doctor. This aspect of negligence is a bit complex and requires elaborate understanding for proper disposal of clinical negligence cases. Thirdly, the death of the patient must have been caused by the supposed negligent treatment. This aspect is more complex arguably requiring expert witnesses to be called during the trial, if the case documents are not sufficient.

Another problem regarding section 304A is the mental state of the accused. Our criminal law mostly requires intention on the part of the accused while committing a crime. Section 304A is clearly dealing with negligent act and thus intention would not be present here that being obvious. The legal system of the UK makes it clear that crime can be committed

is important as that would do proper justice for the family members who might have spent huge money behind a supposed negligent treatment. Again if the deceased victim is the only wage earner of the family, paying off damages to the family by the defendants becomes important from the tort law point of view. However, ascertaining quantum of damages in clinical negligence cases might be a difficult task. Guidelines from case laws from the UK and Indian jurisdictions might be of great help in this regard. From my own experiences of conducting some gruesome clinical negligence cases, I am of the view that raising awareness should be the primary goal in this area. Apart from working on a solid legal structure, raising social awareness among all the people is equally important.

THE WRITER IS AN ADVOCATE, SUPREME COURT OF BANGLADESH.



The unfortunate case of Rid Pharma



SHEKH MD. MUHIBBULLAH

Dhaka court acquitted all five officials of Rid Pharmaceuticals ▲ Ltd in a case filed over the manufacture of toxic paracetamol syrup that killed 28 children across Bangladesh in 2009. As per the court, the acquittal happened because the charges brought against the accused could not be proven due to the 'incapability and inefficiency' of the investigator. In a sensational case like this, an utter failure of the drug administration as the prosecutor was very unfortunate and ominous as well.

In Bangladesh, the Drugs Act 1940 and the Drugs (Control) Ordinance 1982 deal with the quality assurance of drugs consumed by the public in general. However, of the two the one made in 1940 has almost lost its application and says nothing about adulteration. And the Ordinance deals with the adulteration of drugs. It tries the adulterators of medicine, but here too, it cleverly overlooks the incidents like death or disabilities caused by such adulterated drugs.

Under section 16(c) and proviso attached to it, it merely prescribes the punishment (of maximum ten years or two lakh taka fine or both) for causing adulteration of drugs. Any implements used in the manufacture or sale of such medicine or drug may, by order of the Drug Court, be forfeited by the government. But, this section does not mention anything about the death or disabilities caused by using such drugs. The essence of enacting this law is almost underestimated by section 22 which states that 'no Drug Court shall take cognizance of an offence punishable under this Ordinance except on a report in writing made by the licensing authority or an officer authorised by him in this behalf. This law should contain provisions for the public, in general, empowering them also to file the complaint in the Drugs Courts as well.

We have another law which deals with adulteration of drugs, namely the Special

Powers Act 1974. Section 25C(1)(c) and (d) prescribes death penalty as the maximum penalty for such offence. But due to such harsh sanction, cases are rarely filed under this provision.

While we are blaming the drug administration system for not performing its duties, at the same time we need to scrutinise whether the administration has the skilled manpower, proper equipment, and training to conduct criminal investigation. Here the complainant and investigator is the same person!

It is admittedly true that the administration has no training like the police or the Criminal Investigation Department (CID) to conduct the investigation into a case. The case of the toxic paracetamol syrup that killed 28 children in 2009 filed by the drug administration for murdering people could have been investigated by the police department or CID as the police/CIDinvestigated cases see successful prosecution in most of the times.

It is true that we had not had any instance of conviction for drug adulteration in Bangladesh. Back in July 2014, a Dhaka Drug Court awarded 10 years' rigorous imprisonment to an owner and two officials of Adflame Pharmaceuticals in a case filed over the deaths of 76 children by adulterated drugs in 1990. Later on 17 August 2015, a Dhaka Drug Court punished six BCI Pharmaceuticals officials - three directors and three managers - for 10 years in prison for producing and marketing spurious paracetamol syrups.

We have to admit that the existing laws are insufficient in terms of bringing to book people involved in adulterating drugs. Therefore, we urge the government to amend these laws, break the evil nexus between these drug manufacturers and take other necessary steps relating to investigation process.

> THE WRITER IS A FACULTY AT UNITED INTERNATIONAL UNIVERSITY.



Bot does the job!

Mehzeb Chowdhury, Barrister and currently doing his PhD research in forensic science and criminal investigation at Durham University, UK. He worked closely with police forces and federal organisations in the USA and the UK. His areas of research include police studies, forensic science, robotics, artificial intelligence, imaging technologies, virtual and augmented reality. Adib Shamsuddin from Law Desk talks to him on the following issues.

Law Desk (LD): Your invention on virtual crime scene technology has garnered incredible attention from all over the world. When you were working, did you expect it to be so overwhelming?

Mehzeb Chowdhury (MC): The idea was to innovate crime scene imaging technology and an objective way to capture the data. Usually, when a jury requires further information about a scene, in rare circumstances, they can be physically taken there. But, it is a logistic and security nightmare. I spoke to quite a few forensic science, and legal practitioners about it, and they all concurred that it might be time for an alternative. The issues lawyers and judges have with visual evidence is that, it might prejudice the jury towards a certain party. Due to the highly subjective nature of visual evidence today, 3D

recreations, in general, run the risk of this. My research was primarily inspired by NASA's Opportunity, and Curiosity rovers, and their ability to capture 360° panoramic images. Working as a Barrister, found that 2D images in court presented a limited and ultimately incomplete representation of crime scenes. These images lacked the field of view to afford judges and juries an important decisionmaking tool - context. Simply owning the pieces of the puzzle is not enough. Stakeholders must be able to place the pieces in the overall picture, and make sense of it. To facilitate this, CSI's take detailed measurements, hand-draw or sketch crime scenes, and later create 3D reconstructions of crime scenes for presentation in court. The result is, however, a mere approximation of the

the crime scene was first processed. Scene degradation occurs from the moment the crime begins and continues until the last officer turns off the lights and leaves the scene. Actions of suspects, witnesses, the first responding officers, EMS, the environment, and certainly those of the crime scene processor will result in

truth, and not reality as it was on the day



the disturbance and alteration of the scene. Given this understanding of the inevitability of scene alteration, the basic goal of my MABMAT rover is to enter a crime scene, capture it in 360° and then produce unedited, out-of-the-box footage and stills that can be presented in court.

The fascinating aspect of the inception and execution of this robotic endeavour was that it occurred in just under two months. I had been fascinated by space all my life, and drawing inspiration from space-grade technology and implementing it in crime scene forensics was a project that I could not pass up. I designed and built the system in my garage with repurposed parts from France, Germany and China. After I had tightened the last bolt, and set the rover down, I realised that unless I made it public, I would not know how the world would react to this neoteric idea.

I wrote a short article in the highlyrespected research publication, The Conversation, and within a few hours The Daily Mail, and Business Insider had picked it up. I got a call from Russia's state-run news agency Sputnik, and KGO 810 AM San Francisco, and was interviewed live on their respective Saturday morning slots. In a few days, The Times, The I, Digital Trends, Yahoo! News, Geeky Gadgets, Vocativ, and The Discovery Channel had featured it, with coverage spanning nine languages, in twenty countries around the world. Six major police forces from the US reached out to me expressing serious interest to adopt the system, and implement virtual reality in their evidence gathering and presentation routine. Prominent judges, lawyers and forensic science policymakers began a discourse about the technology and its uses, with debates sparking on Twitter, and in justice departments worldwide.

I even got a congratulatory note from NASA's Mars Outreach team for my innovation. I was invited by the largest science festival in the UK (Manchester Science Festival) and given my own virtual reality exhibit alongside Google, and the BBC. It was a massive honour, and I was proud to showcase my work in the presence of almost 10,000 people who attended this year's event.

Suffice to say that, I would not have dreamed of my rover getting such an incredible reception by the scientific and legal community. I'm incredibly blessed to have gotten the support of my parents to follow my dreams, and without them, I would be nothing.

LD: What might be some of the additional use of the robot you invented?

MC: The affordability and customisability of the system makes it ideal for other industries to utilise it. Filmmakers may use it to create immersive 360° videos and virtual reality experiences; real estate firms can implement it for virtual tours of properties; and the 360° imaging system may even be an invaluable resource in law enforcement and military operations where unknown terrain can be mapped, and assailants identified and their positions ascertained. The only limitation for the MABMAT's application, is the user's

imagination.

LD: Despite having studied law, what made you opt for a forensic studies which so largely involves science?

MC: From a very early age, my inspiration has been Leonardo da Vinci arguably the greatest genius in human history. While scientists like Albert Einstein are considered to be superior in terms of IQ points, Leonardo's brilliance was on a whole different plane. In his journals, we find designs for flying machines, tanks, solar power, early computers, hydrodynamics and a theory of plate tectonics, among a host of others. And, because he had no formal

determination can do so too.

LD: What would you advise the students who want to follow your footsteps?

MC: Believe in yourself — even if the world does not. Think of yourself as a mountaineer making your way up to the heights of your life's aspirations. Climbing this mountain not only requires great perseverance, but also incredible patience. Every aspect in the physical world will attempt to keep you from reaching the top. You will stumble, and sometimes fall down, but the key is to never give up. Because once



education, Leonardo had to teach himself every skill that he ever acquired. He was the model of the Renaissance man - and a true genius.

Reading about him and admiring every aspect of his work since I was a child, inspired me to follow in his footsteps. I have worked hard to understand the physical and theoretical aspects of our universe, through independent reading, as I have not been in a science class since eighth grade. Everything I know, and practice, except for law, is self-taught. And, if a regular joe like me can dream of being a Renaissance man, anyone with

you reach the summit, more likely than not, you will find a taller mountain in front of you, and the profound question of whether to start climbing again. True visionaries look up, step forward, and commence the climb. Imitators look down, become disoriented, and fall unceremoniously to whence they came, or even far below that. Albert Einstein had it right: Life is like riding a bicycle. To keep your balance you must keep moving.

LD: Thank you very much for sharing your interesting ideas and inventions.

MC: It's my pleasure.