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एन.एच.आर.सी - पच्चीस वर्ष- बेशुमार आशाएं
Nhrc : Twenty Five Years-billion Hopes

FORENSIC INVESTIGATION

Of

Health Rights Violation In Custody

NATIONAL HUMAN RIGHTS COMMISSION
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Professor
Lady Hardinge Medical College, New Delhi
Forensic Expert to NHRC

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FORENSIC INVESTIGATION OF HEALTH RIGHTS VIOLATION IN CUSTODY

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MEDICAL DIMENSIONS OF FREQUENTLY ENCOUNTERED CASES AT NHRC

Foreword

I am delighted to know that Dr Arvind Kumar, who has been associated as a Forensic Expert with the National Human Rights Commission for the last one year, has come out with a compilation of his rich experience in the form of a book titled "Investigation of Health Rights Violation in Custody".

Dr Kumar has been working in the field of legal aspects of medicine for the last fourteen years and is at present Professor of Forensic Medicine at Lady Hardinge Medical College, New Delhi. As evident from the contents of his valuable expert opinions, he has a clear vision and understanding of the intricacies related to health rights violation. With a remarkable sense of inquiry, he has been very active and enthusiastic while offering his expertise for the benefit of our officers at Investigation Division of NFIRC.

I hope his efforts as reflected in this book will further the cause of promotion of health rights in the times to come. The rich informative content of the book presented in a simple question-answer format shall be of immense help for all the officers, doctors, trainees or agencies involved in promotion of health rights and investigation of health rights violation. I extend my best wishes for his endeavour.

Justice H.L. Dattu

Hon'ble Chairperson,
National Human Rights Commission, New Delhi

PREFACE

Dr. Adarsh Kumar
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Dr Arvind Kumar who is currently working as Professor Forensic Medicine and Toxicology at Lady Hardinge Medical College, New Delhi, is an alumnus of AIIMS, New Delhi. Considering his zest and zeal and possessing a critical eye for medicolegal issues as I observed during his residency period as well as afterwards, I inducted him into National Human Rights Commission as one of the medicolegal experts last year only. It feels extremely satisfying to note that during this short tenure he has been able to not only solve many complicated medicolegal issues in the field of Health and Human Rights but also pen down his experiences in form of this book. Being my one of most beloved disciple it feels immense pleasure in writing this foreword for him.

This captivating book titled "Forensic Investigation of Health Rights Violation in custody" takes the readers through the health care system in custody to many surprising medicolegal interpretations. Although the emphasis of this work is on investigation of health rights violation, it contains much that will be of interest to those outside this field as well as to the professionals of medical science, human rights, police science and law-undeniably to anyone having a fascination with the world of forensic investigation in context of human right violations.

While reviewing the book, I found that he has narrated his experiences in very simple question-answer format which keeps the readers focused on the theme of the book. I can vouch that this small yet very useful book will be of colossal help to many grateful readers who want to have a broader perspective on investigation of health rights violation.

AUTHOR'S NOTE

This book titled "Forensic Investigation of Health Rights Violation in custody"has been prepared to assist different investigators like police, judicial officers, NHRC medical investigation team, forensic experts involved in investigations of NHRC cases, the doctors providing treatment to the custodial patients and the doctors conducting post-mortem in cases of custodial deaths. An attempt has been made through this book to acknowledge the health rights of the prisoner, by making all the stakeholders understand the role played by different dynamics in health care system an attempt has being made through this booklet to make all the stakeholders understand the various dynamics playing role in providing healthcare services. Although it is very difficult to include and elaborate on all the issues, but effort has been made to include maximum topics of interest in forensic investigation relevant to health rights violation.

Framing of quality questions by the investigators has significant bearing on the forensic investigations of health rights violation in custody. It is expected that the knowledge of the issues included in this book would bridge the existing knowledge gap among the various stakeholders and investigators would find themselves better placed in framing quality questions to keep the investigation on right track.

The frequently asked query section may not answer all the queries but these are based on the authors own experience during such investigations and the response may vary according to the case specifics. Regarding any guidelines and their modifications which may be included in this booklet, the clinicians are advised to be appraised by their own professional literature. Suggestions in this book are not meant to be exhaustive or conclusive. Users should test their practicalityin their own day-to-day work.

I hope the topics covered would further instil sense of scientific enquiry among readers in furtherance of our constitutional mandate to protect and promote health rights of those in custody. Besides this, the book will of use for short term internship program conducted at NHRC. I also believe that doctors providing health care services would also find the book useful in curtailing the events of health rights violation in custody.

Dr. Arvind Kumar

Acknowledgements

I express my heartfelt gratitude to my dear colleague Dr. Vinod Kumar, Associate Professor, Oncoanaesthesia and Palliative Medicine, AIIMS, New Delhi & Dr. Anupam Prakash, Professor, Medicine at Lady Hardinge Medical College who has been kind enough for sharing of the valuable clinical inputs in this booklet. I am also grateful to the team, working at Investigation division at NHRC especially to Mr Rajvir Singh, Mr M S Gill Mr I.P.Singh, Mr Bimal Jit Uppal and Mr Dushyant Singh for sharing with me about their long experience of dealing with intricacies of medical investigations. I am also thankful to Dr. Adarsh kumar, Professor, Forensic Medicine, AIIMS, New Delhi for illuminating in me a sense of responsibility towards victims of health rights violation. I am indebted to Dr Sukhdeep Singh, Professor, Forensic Medicine, LHMC for helping me in proofreading and special inputs. I dedicate this work to my parents & all my respected teachers.

Dr Arvind Kumar

PART -I

UNDERSTANDING THE HEALTH CARE IN CUSTODY

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1. What are the health rights of a patient?

1. Right to preventive measures
2. Right of access to medical record
3. Right to information on diagnosis, treatment, medicines, instructions, bills and right to know about what prison/hospital rules and regulations apply to him as a patient and right to obtain relevant information about the professionals involved in patient care
4. Right to consent for all the interventions
5. Right to free choice about the available treatment alternatives and to seek second opinion, however second opinion should be taken only with the consent of treating doctor
6. Right to privacy and confidentiality
7. Right to healthy environment and timely medical service
8. Right to be treated with courtesy, consideration, respect for dignity and patients' time
9. Right to the observance of quality standards
10. Right to safety
11. Right to refuse to participate in human experimentation and research projects which has effect on care and treatment
12. Right to avoid unnecessary suffering and pain
13. Right to personalized treatment
14. Right to expect prompt treatment in an emergency
15. Right to complain, air grievance and to effective remedy
16. Right to be compensated for violation of human rights
17. Right to protection against being forced into sexual activities
18. Right against torture, cruel and degrading punishment
19. Right against arbitrary prison punishment
20. Right to be examined by the medical officer soon after admission in prison to determine any suffering/injury or to determine the class of labour the prisoner is fit for (in cases of award of rigorous imprisonment)
21. Right not to be forcibly discharged from hospital without medical officer's certification
22. Right to be medically examined before being transferred to another jail
23. Right to be visited and medically examined atleast once in a day, if the prisoner is in solitary confinement and once in every fortnight if the prisoner is undergoing rigorous imprisonment.

2. What are the duties of a prisoner?

1. To obey all lawful orders and instructions issued by the competent authority
2. To abide by all prison rules and regulations and perform obligations imposed by these rules and regulations.
3. To maintain the prescribed standards of cleanliness and hygiene.
4. To respect the dignity and the right to life of every inmate, prison staff and functionary.
5. To abstain from hurting religious feeling, belief and faith of the prisoners.
6. To use government property with care and not to damage or destroy the same negligently or wilfully.
7. To help prison officials in the performance of their duties at all times and maintain discipline and order.
8. To preserve and promote congenial correctional environment in the prison.
9. To refrain from making false or exaggerated allegations
10. To not mingle with prisoners of other categories
11. Not to indulge in illicit traffic and consumption of prohibited articles

3. What are different types of prisoners and different custodies?

- State prisoners
- Prisoner of war
- Under trial prisoners (UTP) in jail
- Convicts in jail
- Arrested persons in police custody
- Prisoner in hospital for treatment
- Person set to judicial remand during investigation
- Person taken under police custody under court's order
- Custody during escort for shifting prisoners from one place to another

4. What are the immediate health rights of a person under detention?

The arrested person should be examined by a medical doctor at the time of arrest if she/he so requests. All bodily injuries on the arrested person should be recorded in the inspection memo which should be signed by both the arrested person and the police officer making the arrest. A copy of the memo should be provided to the arrested person. The arrested person should be subject to a medical examination every 48 hours by a trained doctor who has been approved by the State Health Department. At the time of his release from the police custody, the arrestee should be medically examined and a certificate shall be issued to him stating therein the factual position of the existence or non-existence of any injuries on his person.

5. What are the general duties of jail doctors?

1. Their primary duty is to protect and promote the health of prisoners and to ensure that they receive the best care possible.
2. General management of a prison establishment (such as in control of food and hygiene).
3. To promote prisoners' health and social rehabilitation.
4. Further, the doctor should adopt a proactive approach when the prisoner's state of health is seriously affected and release on medical grounds is required.

6. Give some example of violation of human rights in relation to health care.

1. A hospital employs excessive restraints on patients, such as tying them to a bed or wheelchair for hours each day.
2. Mentally ill patients are confined without a set procedure or standard.
3. There are unjustified delays in reviewing whether mentally ill patients must continue to be institutionalized.
4. Patients are detained in hospitals for their inability to pay bills.
5. Patients are quarantined unnecessarily.
6. A state fails to provide information on various health care services. For instance, rape victims are entitled to obtain post-exposure prophylaxis to prevent HIV infection, but very few are aware of this option.
7. Hospitals fail to provide information on patient satisfaction, clinical performance and waiting lists.

8. Physicians fail to comprehensively explain to patients the facts related to their condition.
9. Physicians fail to provide patients with information about treatment options and the potential risks and benefits of each procedure.
10. Patients are denied access to their medical files.
11. Information services are unavailable for people who speak certain languages or who are deaf.
12. Ambulances fail to arrive at certain communities in a timely manner.
13. Patients are unable to obtain low-cost medications due to bureaucratic hurdles and an overly restrictive patent regimen. As a result, their life is in danger.
14. Health services do not include preventive screening for many types of cancer. As a result, patients learn they have cancer when it is already too late for effective treatment.
15. Hospitals do not take adequate measures to prevent hospital-borne infections, oversee health risks following transfusions and ensure that their tests and treatment remain of high quality.
16. Hospitals fail to meet the needs of patients who require religious or psychological support, or do not provide treatment appropriate for the terminally ill.
17. Hospitals fail to provide care suited to the needs of small children.
18. Long, unjustified delays in the provision of health services regularly lead to a worsening in patient's health.
19. A State lacks adequate compensation procedures for patients harmed by health care providers.
20. Victims of State torture are denied requisite medical care.
21. Prisoners lack basic health services and are forced to subsist on very little food and with inadequate clothes and no heat during the winter.
22. Mentally ill prisoners are punished for symptoms of their illness, including self-mutilation and attempted suicide.
23. National laws restricting opioid availability and access cause cancer and AIDS patients to suffer unnecessary pain.
24. A country fails to adopt a national health plan or to make it publicly available to its citizens.
25. Citizens lack an opportunity to comment on and participate in the setting of public health priorities.
26. The government will not accept or respond to information and

proposals on health care delivery submitted by citizen.

27. Members of certain communities are treated in separate ways with a lower standard of care.
28. Health workers refuse to treat sex workers, drug workers or LGBT persons.
29. Maternal and reproductive health services for women are lacking.
30. A country fails to provide health services to the poor or non-citizen.

7. What constitute adequacy of patient care?

The response to following queries helps to decide the adequacy of patient care.

1. Whether the prisoner's primary health screening was done upon entry in prison?
2. Whether any information about chronic/present illness, drug abuse, medicines currently taking, past operation history given by the prisoner was adequately acted upon?
3. Whether the disease was timely diagnosed?
4. Whether the disease was adequately investigated?
5. Whether the prisoner was timely attended?
6. Whether the prisoner was in the need of emergency treatment and was provided with same?
7. Whether the prisoner was provided with definitive treatment?
8. Whether the prisoner was adequately advised?
9. Whether the prisoner was timely referred?
10. Whether the prisoner was provided with referral specialist care after being referred?
11. Whether the prisoner was prematurely discharged?
12. Whether transportation services were provided during referral?
13. Whether adequate diet was provided?
14. Whether the medicines were actually given?
15. Whether follow-up advices were adhered to?
16. Whether regular weekly/monthly check up was done?
17. Whether proportionate patient care of primary / secondary / tertiary centre were provided as per the need?
18. Whether the disease was treatable/curable/preventable?

19.Whether symptoms, signs & diagnosis of disease and the treatment thereof were corroborating/matching?

20.In case of language barrier between doctor & patient, whether efforts were made to facilitate the communication ?

8. When should inadequacy of patient care be suspected by investigator?

1. If there is no valid initial health screening report in record.
2. If there is any suspicious finding/complaint in initial health screening, which remain unattended
3. If the death is sudden or suspicious.
4. When there are allegations suggesting inadequate patient care
5. If the treatment record/chronology is deficient
6. If the patient is young adult/or apparently healthy upon entry in prison
7. If the stay in the prison is of short duration (within weeks or months)
8. If the clinical diagnosis of disease and the cause of death in autopsy are not matching
9. If regular check-up/observations are not on record
10. If patient suffering from chronic illness was on regular treatment and follow-up or not
11. If the prisoner was referred but not actually made to visit the higher centre.
12. If there was unjustified shuttling of the patient between prison and higher health centre.
13. If the prisoner was brought dead to higher centre.
14. If the prisoner was found dead in prison cell
15. If there are injuries mentioned in Autopsy report

9. Which record should be observed while investigating cases for adequacy of patient care?

1. Primary health screening report of prisoner upon entry in prison to ascertain whether any illness was present at the time of entry to the prison or before.
2. Weekly/monthly health check-up record to ascertain regularity of health screening activities
3. History ticket to ascertain the previous health record and medical

advices.

4. Medical/health record for throughout the stay in prison to ascertain the continuity of treatment by looking at the chronology and provision of definitive management.
5. Referral/dietary advice to ascertain the timeliness of patient care and other advices.
6. Punishment book record to ascertain and corroborate the critical findings with the punishment in prison.
7. Post-mortem report, forensic science laboratory toxicology, histopathology report, post-mortem videography and expert opinion to ascertain manner and cause of death which need to be corroborated with clinical record.
8. Magistrate for any other inquiry report

10. What could be the consequences of incomplete medical record?

An incomplete medical record

- Contains gaps reflecting inadequate patient care
- Demonstrates that care was incomplete
- Demonstrates non-compliance with established norms/policies
- Is used to support allegations of negligence
- Is used to support allegations of fraud.

11. For how long medical record should be maintained?

There are no definite guidelines in India regarding how long to retain medical records. The hospitals follow their own pattern retaining the records for varied periods of time. AIIMS, New Delhi maintains indoor/MLC record for 10 years and OPD record for 5 years (also as per DGHS, MOHFW, GOI). Under the provisions of the Limitation Act 1963 and Section 24A of the Consumer Protection Act 1986, which dictates the time within which a complaint has to be filed, it is advisable to maintain records for 2 years for outpatient records and 3 years for inpatient and surgical cases. However the provisions of the Consumer Protection Act allows for condoning the delay in appropriate cases. This means that the records may be needed even after 3 years. It is important to note that in paediatric cases a medical negligence case can be filed by the child after acquiring the age of majority. The Medical Council of India guidelines also insist on preserving the inpatient records in a

standard proforma for 3 years from the commencement of treatment. The records that are the subject of medico-legal cases should be maintained until the final disposal of the case even though only a complaint or notice is received. If any request is made for medical records either by the patients / authorised attendant or legal authorities involved, the same may be duly acknowledged and documents shall be issued within the period of 72 hours. It is advisable for prison to duly keep all the treatment record while maintaining the chronology so that they can be reproduced whenever they are required for forensic investigation by the NHRC.

12. What are the hurdles in investigation of violation of health rights?

1. Excessive workload due to inadequacy of manpower and long working hours in medical investigation division.
2. Lack of coordination with state authorities like delay in sending clinical record and repeatedly sending the already existing clinical record there by unnecessarily fattening the investigation files
3. Clinical record may be illegible (faded print/hand writing not readable) or non-maintenance of crucial clinical record.
4. Non-availability of trained investigating police personnel due to lack of specialised training and knowledge gap in understanding of medical terminologies leading to non-suspicion of inadequacy of patient care or framing of non-relevant queries for expert opinion.
5. Conduction of hasty autopsy or non-compliance with NHRC guidelines for conducting autopsy.

13. What are the commonly encountered diagnostic difficulties faced by doctor in prison?

1. Malingering- pretending to be sick for seeking attention, avoid work or due to other hidden motive.
2. Non-reporting of sickness: may be due to administrative hurdles or to avoid transfer on medical ground to a particular prison.
3. Mental illness: if the prisoner is suffering from undiagnosed psychological disturbances or if not aware of the illness (loss of insight)
4. Non recognition of the alarming signs and symptoms of disease due to lack of health awareness
5. Taking the suffering lightly by the patient due to his own attitude.
6. Privacy issues like in diseases associated with urinary/genital

system or associated with social stigma like TB/Leprosy

7. Language barriers: if the prisoner is from tribal background or uneducated, difficulty may arise in proper communication of the suffering to the health staff.
8. No trust on jail authority/ over strictness by jail authority
9. Finding insufficient time to seek for medical advice especially in cases of prisoner spending imprisonment with rigorous work.
10. Absence of social support system in jail
11. Shortage of infrastructure/healthcare staff.

14. What are some good practices for improvement of prison health services?

1. Medical examination of each prisoner should be done on admission to prison.
2. Medical examination should be done confidentially.
3. Prison rules related to medical care should be given to prisoners in writing.
4. Medical record should be kept in file of each prisoner.
5. Prisoner should be given information on transmissible disease and their prevention methods on entry to prison such as TB & HIV etc.
6. Screening for TB and HIV should be done on admission to prison.
7. Prisoner should be given permission to place a request to access to medical officer, for which request register may be maintained.
8. Common ailments should be identified and their medicine supply should be ensured.
9. Emergency medication supply should be ensured.
10. Strictly adhere to referral criteria.
11. Special diets should be provided to those for whom they are medically necessary.
12. Self-mutilation management protocol should be in place.
13. Rules for treatment of seriously ill should be in place so as to ensure timeliness in initiating the appropriate treatment.
14. Regular meetings should be encouraged between the prison in-charge and the medical officer to make any necessary adjustment.
15. The judiciary or prison authorities may ask doctors to establish a person's fitness to be detained or to prepare forensic reports in cases

of allegations of ill treatment. Ideally, such tasks should be performed by an independent doctor from outside the prison system.

16. Regardless of the security issues, health care staff should have unrestricted access at any time and any place to all prisoners, including those subject to disciplinary measures. The doctor in charge is responsible for ensuring that each prisoner can, in practice; exert his/her right of access to health care at any time.

17. Health care staff should never participate in the initiation or enforcement of any sanctions, as this is not a medical act and thus to participate will jeopardize any subsequent doctor–patient relationship with the prisoner and with all prisoners.

18. Prisoners who are placed in isolation should be evaluated initially and periodically for acute mental illness, drug or alcohol withdrawal and injuries. If these are identified, prisoners should have access to prompt and effective treatment. Doctors should not certify fitness for isolation.

19. Furthermore, doctors must immediately inform the prison management if a prisoner presents with a health problem.

20. In situations of extreme tension the prison authorities can decide to use physical restraints on one or more prisoners for the purpose of preventing self-harm or harm to other prisoners and staff. Restraints must only be applied for the shortest time possible to achieve these purposes and should never be used as a form of punishment. Since the decision to use restraints in situations of violence is not a medical act, the doctor must have no role in the process.

21. Medical personnel should never carry out medical acts on prisoners who are under restraint (including handcuffed), except for patients suffering from an acute mental illness or delirium with potential for immediate serious risk for themselves or others. Moreover, doctors should never agree to examine a blindfolded prisoner.

22. Prison doctors and nurses should not carry out body searches, blood or urine tests for drug metabolites or any other examinations except on medical grounds and with the consent of the patient. Vaginal, anal and other intrusive bodily inspections are primarily a security rather than a medical procedure, and thus should not form part of the duties of prison health care staff. On the rare occasions when intimate body searches are deemed necessary, they should be performed by doctors who are, as far as possible, external to the prison.

15 What are the good practices for doctors by which suspicion of inadequacy of patient care during investigations could be reduced?

1. By maintaining the clinical record in proper chronology and reproduction of the complete clinical record during investigation
2. By making notes of whatever clinical examination was done especially lifesaving treatment like provision of oxygen, Cardio-Pulmonary Resuscitation, medication or any procedure
3. By making notes of detailed clinical condition of the patient during referral to higher centre.
4. By putting an explanation/remark, whenever a patient is advised to refer to a specialist but not actually consulted
5. By not putting casual entries in notes mentioning injuries over the patient
6. By not missing the subsequent steps taken by the doctor once a clear history of present illness/medication is on record in health screening proforma
7. By not involving incompetent health care staff in the patient care
8. By keeping the record of routine heath check-ups (including routine history taking and physical examination) conducted in prisons
9. By not missing routine follow-up of patients suffering from chronic known illness
10. By taking high risk consent or poor prognosis communication in appropriate cases
11. By recording the refusal (if there is so) for treatment/non-compliance/non-cooperation
12. By taking the help of a translator especially in central jails where the prisoner's linguistic background is different from that of treating doctor and making a note of it when such situation arises.
13. By keeping yourself (doctors) updated with the accepted professional guidelines

16. What are the conditions related to autopsy because of which suspicion of inadequacy of patient care or conduction of hasty post-mortem may arise?

1. In many cases the post-mortem diagnosis of tuberculosis is made merely based on non-significant gross post-mortem findings in lungs which may create an erroneous impression among investigators that

since the cause of death was mentioned in autopsy report as pulmonary tuberculosis and as such the disease is treatable, whether the timely diagnosis or treatment was given to the patient or not and in reality the patient might be suffering from other chronic lung disease. Caution should be observed during post-mortem that caseation necrosis may be seen in many other non-tubercular conditions or tubercular focus seen in lungs could be a coincidental finding rather than actual cause of death.

2. In some cases there is a tendency of doctors conducting autopsy in attributing non-significant gross findings to the final cause of death. In some cases even after having no significant post-mortem findings, the cause of death is straightway given without having any scientific basis. In such cases it becomes very difficult for the investigators to rely upon the post-mortem report. As a caution, it should be put in habit that all the findings on which final cause of death is based should be mentioned as a part of opinion.
3. In some of the cases the poor injury description in the autopsy report creates a situation of weak corroboration with the antemortem events/treatment.
4. Non adherence to the guidelines as recommended by the NHRC about the post-mortem photo or videography also creates suspicion in the mind of investigators that something was intentionally kept hidden. This may especially happen in the circumstances where the services of unskilled forensic photographers are taken or when the camera especially has missed the findings on which the cause of death is based or some significant findings of injury suggesting torture/assault are missed.
5. Especially in cases of autopsy conducted by board of doctors, a caution is advised that before signing the post-mortem report, they should convince themselves that the report is complete and is based on scientific findings.
6. Government health system should make sure that before putting up the doctor on the roster of post-mortem duty, they should be properly given training in autopsy or the custodial death cases should be referred to a board of doctors.

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17. When the error of judgement in diagnosis is negligence?

Usually error of judgement is not considered as an act of negligence. An error of judgment constitutes negligence only if a reasonably competent professional with the standard skills that the defendant professes to have, and acting with ordinary care, would not have made the same error.

18. What is the difference between negligence, rashness and recklessness?

The Supreme Court distinguished between negligence, rashness and recklessness. A negligent person is one who inadvertently commits an act of omission and violates a positive duty. A person who is rash knows the consequences but foolishly thinks that they will not occur as a result of her/his act. A reckless person knows the consequences but does not care whether or not they result from her/his act. Any conduct falling short of recklessness and deliberate wrongdoing should not be the subject of criminal liability. Thus a doctor cannot be held criminally responsible for a patient's death unless it is shown that she/he was negligent or incompetent, with such disregard for the life and safety of his patient that it amounted to a crime against the State.A simple lack of care, an error of judgment or an accident, even fatal, will not constitute culpable medical negligence. If the doctor had followed a practice acceptable to the medical profession at the relevant time, he or she cannot be held liable for negligence merely because a better alternative course or method of treatment was also available, or simply because a more skilled doctor would not have chosen to follow or resort to that practice.

19. What are the factors which can contribute to cause death in prison?

1. Inadequate conditions of detention
2. Insufficient access to health care
3. Insufficient contact with the family
4. Inadequate safeguards against suicide
5. Arbitrary deprivation of life, torture and other forms of ill-treatment.

20. What are the procedures to be adopted on first admission to prison?

1. The prisoner should be kept in a separate reception ward until the initial formalities for his placement are complete.
2. Haircut, shave, issue of soap/disinfecting lotion
3. Disinfection and storing of prisoner's personal clothes and other items
4. Issue of prison cloths, beddings and utensils
5. Issue of authorised personal belongings
6. Housing as per principle of basic segregation
7. Thorough medical examination within 24 hours
8. Attending to immediate and urgent needs of prisoner including immediate personal problems.
9. Finger printing and photograph as per rule
10. Identification of drug addicts.

21. What questions should arise in the mind of the doctor while examining the prisoner upon first admission to prison?

1. What are the main health problems for the prisoner as a patient?
2. Is the patient a danger to him/herself?
3. Does he/she has a serious illness, or is he/she having withdrawal from a substance misuse dependence or correct medication?
4. Is he/she at risk of self-harm or suicide?
5. Has the patient suffered injury or ill-treatment during arrest or detention?
6. Does the patient present a risk or a danger to others? Does he/she have an easily transmitted disease that puts others at risk? Is his/her mental state causing him/her to be a threat or likely to be violent?

22. What are the provisions for recording of directions passed by the medical officer?

All directions given by the Medical Officer or Medical Subordinate in relation to any prisoner, with the exception of orders for the supply of medicines or directions relating to such matters as are carried into effect by the Medical Officer himself or under his superintendence,

shall be entered day by day in the prisoner's history-ticket or in such other record as the State Government may by rule direct, and the Jailer shall make an entry in its proper place stating in respect of each direction along with the fact of its having been or not having been complied with, accompanied by such observations

23. What are the provisions of punishment for prison offences?

The Superintendent may examine any person touching any such offence, and determine thereupon, and punish such offence by- (1) a formal warning: Explanation— A formal warning shall mean a warning personally addressed to a prisoner by the Superintendent and recorded in the punishment book and on the prisoner's history-ticket; (2) change of labour to some more irksome or severe form [for such period as may be prescribed by rules made by the State Government; (3) hard labour for a period not exceeding seven days in the case of convicted criminal prisoners not sentenced to rigorous imprisonment; (4) such loss of privileges admissible under the remission system for the time being in force as may be prescribed by rules made by the State Government; (5) the substitution of gunny or other coarse fabric for clothing of other material, not being woollen, for a period which shall not exceed three months; (6) imposition of handcuffs of such pattern and weight, in such manner and for such period, as may be prescribed by rules made by the State Government; (7) imposition of fetters of such pattern and weight, in such manner and for such period, as may be prescribed by rules made by the State Government; (8) separate confinement for any period not exceeding three months;

Explanation— Separate confinement means such confinement with or without labour as secludes a prisoner from communication with, but not from sight of, other prisoners, and allows him not less than one hour's exercise per diem and to have his meals in association with one or more other prisoners; (9) penal diet, that is, restriction of diet in such manner and subject to such conditions regarding labour as may be prescribed by the State Government: Provided that such restriction of diet shall in no case be applied to a prisoner for more than ninety-six consecutive hours, and shall not be repeated except for a fresh offence nor until after an interval of one week; (10) cellular confinement for any period not exceeding fourteen days: Provided that after each period of cellular

confinement an interval of not less duration than such period must elapse before the prisoner is again sentenced to cellular or solitary confinement: Explanation—Cellular confinement means such confinement with or without labour as entirely secludes a prisoner from communication with, but not from sight of, other prisoners; [(11)]penal diet as defined in clause (9) combined with [cellular] confinement ;][(12)]whipping, provided that the number of stripes shall not exceed thirty.Whipping.— (1) No punishment of whipping shall be inflicted in instalments, or except in the presence of the Superintendent and Medical Officer or Medical Subordinate. (2) Whipping shall be inflicted with a light ratan not less than half an inch in diameter on the buttocks, and in case of prisoners under the age of sixteen it shall be inflicted, in the way of school discipline, with a lighter ratan.

24. What are the duties of Medical Officer while certifying fitness of prisoner for punishment?

(1)No punishment of penal diet, either singly or in combination, or of whipping, or of change of labour shall be executed until the prisoner to whom such punishment has been awarded has been examined by the Medical Officer, who, if he considers the prisoner fit to undergo the punishment, shall certify accordingly in the appropriate column of the punishment-book prescribed.

(2)If he considers the prisoner unfit to undergo the punishment, he shall in like manner record his opinion in writing and shall state whether the prisoner is absolutely unfit for punishment of the kind awarded, or whether he considers any modification necessary.

25. Whom and what should be communicated in case of death in custody and how?

1. Death of all prisoners whose fingerprints have been taken and if known in prison, shall be immediately intimated to the finger print bureau.
2. In case of military prisoners, commanding officer who sent him should be informed.
3. In case of foreign prisoners, embassy should be informed through district magistrate and inspector general (IG).
4. District magistrate should be informed in case of death of a Women prisoner who leaves a child behind in jail.

5. Intimation of all deaths occurring from whatever cause in the prison should be sent to nearest magistrate to hold inquest & SHO of police station having jurisdiction to make a preliminary investigation.

The Medical Officer shall record in a register the following particulars, so far as they can be ascertained, namely:

(1) the day on which the deceased first complained of illness or was observed to be ill,

(2) the labour, if any, on which he was engaged on that day,

(3) the scale of his diet on that day,

(4) the day on which he was admitted to hospital,

(5) the day on which the Medical Officer was first informed of the illness,

(6) the nature of the disease,

(7) when the deceased was last seen before his death by the Medical Officer or Medical Subordinate,

(8) when the prisoner died, and

(9) In cases where a post-mortem examination is made an account of the appearances after death.

26. What are the provisions for disposal of dead body of prisoners?

Only after the post-mortem, body may be handed over to relatives if available. For this purpose body may be kept for 24 hours in mortuary, and then if no relative available, body can be disposed. The body should be handed over to relatives subject to the condition that there shall be no public demonstration of any nature.

27. What are the NHRC Guidelines for post-mortem video-filming in cases of encounter & custodial deaths?

Aim of video-filming and photography is to

1. Record the findings of detailed post-mortem examination which may suggest custodial torture.
2. Supplement the finding of post-mortem examination (recorded in the post-mortem report) by video graphic evidence.
3. Facilitate an independent review of the examination at a later stage if required.

Guidelines are:

1. All post-mortem examination done in cases of custodial deaths or in

encounter deaths should be video-filmed and cassettes be sent to the National Human Rights Commission along with the post-mortem reports.

2. Clothing over the body of deceased should be removed, examined, preserved as well as sealed by the doctor conducting the autopsy.
3. In cases of alleged firearm related deaths, body should be subjected to radiological examination before autopsy.
4. During videography of the post-mortem examination, the voice of the doctor should be recorded and must narrate his prima-facie observation while conducting the examination.
5. The video-filming and photography of the post-mortem examination will be done by a person trained in forensic photography and videography with a good quality camera with 10X optical zoom and minimum 10 MP will be used.
6. The photographs should be taken after incorporating post-mortem number, date of examination and a scale for dimension in the frame of the photographs itself and the camera must be held at right angle to the object being photographed
7. It also said that a total of 20-25 coloured photographs covering the whole body should be taken and some photographs should be taken without removing the clothes.
8. The photographs should include profile photo, face (front, right lateral, left lateral views), back of head, front of body (up to torso-chest and abdomen) and back, upper and lower extremity-front and back, focusing on each injury/lesion-zoomed in after properly numbering the injuries, internal examination findings (two photos of soles and palms each, after making incision.

28. What are the Supreme Court's guidelines for the treatment of pregnant women in prison as well as their children?

1. Arrest of women should be made by lady officers only.
2. Under Section 60(1) (d) of the Jail Manual bill, temporary or special leave can be granted to a prisoner having succient cause, and women who are pregnant can exercise this provision.
3. Before sending a pregnant woman to jail, the concerned authorities must ensure that the jail in question has basic minimum facilities for child delivery.

4. If a woman is found to be pregnant, it must be reported, and the woman should be sent to the female wing of the District Government Hospital to be periodically examined.
5. Prenatal, postnatal care as well as all gynaecological examinations of the women will be conducted in the District Government Hospital.
6. As far as possible, arrangements of temporary release or parole of the woman should be made for her delivery for the safety of both mother and child.
7. Births in prison have to be registered at the local Birth Registration Office. It should not be mentioned that the child was born in prison.
8. All facilities for naming rites should be extended.

29. What are the do's and don'ts related to health concerns of the victims while firing during encounter?

1. Aim at the front of crowd actually rioting or inciting to riot or at conspicuous ring leaders, i.e, do not fire into the thick of the crowd at the back.
2. Aim low and shoot for effect.
3. Cease firing immediately once the object has been attained.
4. Take immediate steps to secure wounded.
5. Ensure medical relief to any person injured during the encounter, if any person dies in the encounter his dead body be handed over immediately to the police along with the details leading to such death.
6. Do not use any force after having arrested a person except when he is trying to escape.
7. Do not use third degree methods to extract information or to extract confession or other involvement in unlawful activities.
8. Do not use excessive force and no torture or harassment of civilians.
9. Do not get involved in hand to hand struggle with the mob.
10. Do not ill-treat any one, in particular, women and children.

30. What are the essential practices while referring a patient from prison hospital to higher centre?

Formalities at the referring prison hospital

1. The medical officer who is treating the patient is to take initiative for referral and sign in the referral card.
2. A patient should be referred only if there is a definite and convincing indication felt by the referring doctor for referral. The indication should be clearly mentioned. Referral should be documented in referral out register maintained at prison.
3. The reasons for referral should be clearly indicated in the referring letter. Brief summary of vital signs at the time of sending the patient and medications given should be clearly mentioned. It should be accompanied with sufficient documents like referral letter and supporting materials like X-ray, ECG or other similar investigation reports.
4. Basic patient work up at the level of referring centre should as far as possible be completed depending on the availability of facilities for investigation as well as time. Efforts should be taken from the referring end to provide investigation results pending if any to be later collected and sent to the referred institution through the accompanying policeman.
5. Writing in any communication and correspondence should be legible and easily readable.
6. The diagnosis to be recorded is the most likely working diagnosis felt by the referring doctor at the time of referral.
7. Necessary information should be passed on to the patient along with counselling about the need of referral and necessary supportive information and guidance. In most of the situations of conflict lack of communication or misgivings of matters to patients end up in hostile situations. Proper care must be taken to avoid such situations.
8. In the case of emergency referrals transport should be arranged from the referring prison based on the clinical condition of the patient as decided by the referring doctor. Prison administration may arrange the transport on request of the doctor.
9. In the case of emergency referral if the patient's condition is critically dangerous warranting continuing medical support, or if there is a chance to worsen, demanding emergency resuscitation, an appropriately functional medical ambulance should be made

available.

10. Timely referral is important in saving lives and avoiding complications. Hence once decided the patient should be sent at the earliest.

11. Even if a patient is referred, all possible treatment and care at prison hospital level should be given to that patient and then only referred.

31. What are the NHRC guidelines for conducting polygraph (lie detection) test?

1. No Lie Detector tests should be administered except on the basis of consent of the accused. An option should be given to the accused whether he wishes to avail such test.
2. If the accused volunteers for a Lie Detector Test, he should be given access to a lawyer and the physical, emotional and legal implications of such a test should be explained to him by the police and his lawyer.
3. The consent should be recorded before a Judicial Magistrate.
4. During the hearing before the Magistrate, the person alleged to have agreed should be duly represented by a lawyer.
5. At the hearing, the person in question should also be told in clear terms that the statement that is made shall not be a 'confessional' statement to the Magistrate but will have the status of a statement made to the police.
6. The Magistrate shall consider all factors relating to the detention including the length of detention and the nature of the interrogation.
7. The actual recording of the Lie Detector Test shall be done in an independent agency (such as a hospital) and conducted in the presence of a lawyer.
8. A full medical and factual narration of manner of the information received must be taken on record.

32. What are the safeguards which are guaranteed by fundamental rights under the constitution of India?

Article 20 (3)- A person accused of an offence shall not be compelled to be a witness against himself.

Article 21- No person shall be deprived of his life or personal liberty except according to procedure established by law. The expression "life

& personal liberty" also includes the right to live with human dignity, guarantee against torture and assault by the state or its functionary.

Article 22-Guarantees protection against arbitrary arrest without being informed of the grounds of such arrest. Clause (2) of Article 22 directs that the person arrested shall be produced before the nearest magistrate with 24 hours (excluding the time necessary for the journey from place of arrest to the court.

33. Does a citizen shed off his fundamental right to life, the moment a person is arrested?

No, the essential right guaranteed by article 21 of Indian constitution cannot be denied to any person under detention, except according to the procedures established by law.

34. What are the punitive provisions contained in the Indian Penal Code which provides punishment for violation of right to life?

Section 220- Punishment to an officer or authority who detains a person with a corrupt or malicious motive.

Section 330 and 331 provides for punishment of those who inflict injury or grievous hurt (torture) on a person to extort confession or information related to commission of an offence.

35. In cases of violation of fundamental rights, what kind of compensation is provided?

The relief shall be given by way of compensation under the public law jurisdiction for the wrong done, due to breach of public duty by the state of not protecting the fundamental right to life or personal liberty of the citizen. The emphasis has to be on compensatory and not on punitive element. The quantum of compensation is not based upon a strait jacket formula but depends upon the peculiar facts of the case.

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PART -II

MEDICAL DIMENSIONS OF FREQUENTLY ENCOUNTERED CASES AT NHRC

A

Sudden Death, Natural Disease, Infection And Autopsy

1.What is sudden death?

The medicolegal term “sudden death” (sometimes called "sudden unexpected natural death"), refers to those deaths which are not preceded by significant symptoms. The term as used obviously excludes violent or traumatic deaths. There is no universally accepted definition of sudden death, and time periods varying from 1 to 48 hours have been used in different places. The WHO's definition is “death occurring within 24 hours of the onset of symptoms”.

2. What are the usual causes of sudden death and how to identify them?

	Causes of Sudden Death	Identifying features
1	Coronary Artery disease	More common in left coronary artery Thrombus and plaque may be seen along with narrowing of artery. Heart may rupture after 2 week of heart attack. Anyone with heart weight of > 450gm is a candidate for sudden death with or without coronary artery stenosis
2	Hypertensive (HT) heart disease	HT may kill by kidney failure, bleeding in brain or heart failure. Hypertensive hearts are generally 500 - 700gms by weight.
3	Aortic valve disease	Mostly seen in elderly men. Left side of heart is enlarged
4	Cardiomyopathy	Victims are young adults Heart enlarged (left side more)
5	Myocarditis	Mostly of unknown origin. Should always be confirmed under microscopy.
6	Rupture of aneurysm	May be in abdominal aorta (major blood vessel coming out from heart) or in brain (young to middle age, which can cause subarachnoid bleed in brain)
7	Pulmonary thromboembolism	Generally happens about 2 weeks after injury or surgical operation. Thrombus generally originates from legs that may lodge in the lungs.
8	Sudden death in epilepsy	When all investigations including toxicology, drug overdose are done and there is no significant finding on autopsy, epilepsy could be recorded as acceptable cause of death. Findings suggestive of fits (tongue/lip bite). Previous history of head injury/seizure.

9	Asthma	History of breathlessness, inhaler use. Enlarged lungs, spongy, thickening of airway walls often packed with thick mucus may be the findings on autopsy.
10	Haemoptysis	Blood in cough, common in TB
11	Bleeding in digestive system	Ulcer, cancer, liver disease, polyp.
12	Subarachnoid haemorrhage	May be associated with hypertension or trauma

3. What questions must be addressed during autopsy when an injury has been sustained by a person who has a substantial natural disease also?

- Whether death was caused entirely by the disease and would have occurred irrespective of the injury?
- Whether death was caused entirely by the injury and would have occurred whether or not the disease was present?
- Whether the death was caused by a combination of these two processes?

4. Whether anaemia can cause death?

In severe chronic anaemia, the heart may be unable to sustain the high cardiac output demand and consequently heart failure can develop. The right heart failure can also lead to congestive hepatomegaly (liver enlargement). Iron deficiency is also an independent risk factor for death due to heart failure.

5. Whether anaemia can develop suddenly/acutely?

Anaemia can even happen rapidly in cases of acute large bleeding which could be appreciated by presence of pallor and confirmed by estimation of haemoglobin. Although anaemia generally develops over a period of time commonly due to deficiency of micronutrients or may be associated with chronic illnesses.

6. How ear infection can cause death?

Brain abscess could be a possible complication due to spread of infection from middle ear. Neck rigidity (which is suggestive of infection involving brain coverings i.e., meningitis) and repeated vomiting (suggestive of raised pressure in head) are further possible complications leading to fatal outcome.

7. In which cases, autopsy do not reveal any cause of death?

An autopsy for which the gross and histological findings do not provide an adequate cause of death is called negative autopsy. It may happen in 2-5% of autopsies.

It may happen due to the nature of the condition/disease (true negative autopsy) and could be observed in following types of deaths:

- Vagal inhibition of heart
- Cardiac arrhythmias
- Acute neurogenic myocardial failure
- Coronary spasm
- Laryngeal spasm as in dry drowning
- No anatomical change due to concussion of brain.
- When a person scuffles with a person having cardiopulmonary deficit, it results in functional ischemia of heart (no appreciable finding may be seen in heart).
- Death from early myocardial infarction

It may also happen due to other causes (pseudo-negative autopsy) like:

- Lapses in history taking of case, external examination, internal examination, histological and toxicological examination.
- Lapses in knowledge/skill of the health professional.

8. What different questions can be answered upon a second autopsy performed later?

1. Did the original autopsy comply with applicable domestic rules and meet international standards?
2. Can the initial findings be confirmed?
3. Are there additional relevant findings that were not detected at the first autopsy?
4. Are the findings of the second autopsy consistent with those of the first?

9. What are important points which should be considered during autopsy?

External examination

1. Document and photograph all identifying features (distinctive birthmarks, prominent moles, scars, tattoos, etc.). Document examination of clothes, the weight of the person and status of nourishment.
2. Photograph and make sketches of the entire body; take close-up photographs of the hands and face (including the teeth). Photograph before and after. Do videographic recording of the postmortem examination as per NHRC guidelines.
3. Document in detail all injuries on the body (type, location (including distance from the mid-line and from the heel/bony land mark), shape, size and pattern) including signs of healing and signs of patterned/ systematic beating.
4. Suspected bite marks/sexual assaults swab should be taken for DNA/biological fluid analysis
5. Document the absence or presence of injuries to the external genital organs, perineum, anus and oral cavity.
6. Document the absence or presence of petechial haemorrhages to the conjunctivae, buccal mucosa and periorbital and retro-auricular skin.
7. Provide fingerprints, to establish the identity of the deceased.
8. Record dental condition and dental procedure (if any).
9. Where there are extensive injuries (e.g. burns) it is important to note the areas that are intact and, in case of burns, an estimation of the burnt body surface should be given. Body hair should be documented where there are burns or scalds.
10. For firearms injuries, the presence or absence of abrasion, stippling, soot and residues, etc., should be thoroughly documented along with measurement of the skin defect.
11. Whenever possible, a full body x-ray should be taken before the internal examination of the body especially in cases of death due to burns, firearm injury, infant deaths, pneumothorax & death during surgical intervention and advanced decomposition.
12. Perform a full autopsy with subcutaneous dissection of the back side of the body and layered in situ neck dissection (partial autopsies are insufficient).

13. Record the weight, shape, colour and consistency of each organ, and note any neoplasia, inflammation, anomalies, haemorrhage, ischemia, infarcts, surgical procedures or injuries. Look for any sign of electrocution especially in all the natural orifices and all over the body.
14. Document any sign of starvation (if any)-presence of food, fecal matter etc.
15. Take samples of organs and of any abnormal areas and injuries for analytical purposes (e.g. toxicology, pathology, age-estimation of injuries)
16. After the internal examination the organs should be put back into the body. All incisions should be closed and the body should be handed over to the next of kin in a state of maximum possible integrity and respectful of the deceased person's dignity.

10. What are the parameters which should be mentioned while preparing injury report by the Medical officer?

It is common observation that injury reports are poorly prepared in prison, which later on causes lots of confusion in arriving at final conclusion about injury. Poorly prepared reports may be difficult to corroborate with subsequent clinical record or post-mortem report. The following parameters should be neatly recorded.

- Particulars of the person examined along with thumb impression and identification mark
- Date and time of examination
- Cloths/foreign material description
- Dimensions of the wound (including size, site, margins, edges, reference from anatomical landmarks, orientation), tenderness, swelling.
- Signs of healing (bleeding / serum / loose or adherent scab/colour/surrounding skin/scar/hypo or hyper pigmented)
- Any disability due to injury

11 How medical officer should opine about the injuries ?

While recording opinion, the medical officer must specify whether the injuries are:

1. Fresh (within 4 to 6 hours) /recent (within one day) /old (If more than one day, be specific if possible)
2. Caused by sharp/ blunt objects / rough surface/ burning objects or smouldering objects like cigarettes,
3. Simple / grievous / dangerous in nature.
4. Injuries are suggestive of impulsive or planned (systemic) physical torture.
5. While giving opinion, multiple injuries if any, may be clubbed according to their nature. The nature of each injury such as, simple / grievous /dangerous, should be specified both individually and collectively.
6. If an injury is not consistent with the history given-question it at the time of examination.
7. In many cases victims may be unaware of the site of the injury-

8. Re-examine injuries after 24-48 hours (particularly bruises with blunt force impact)
9. Pre-treatment and post-treatment examination (Re-view)
10. Bodily pain is also covered in simple hurt. Tenderness or restriction of movements should be noted. Better to review after 1-2 days.
11. In case no external injury appreciable: So do not fill the category of hurt in such cases.

12. How to recognise whether the cut marks are self-inflicted or not?

Self-inflicted cut marks are usually superficial, rarely dangerous to life (unless infected), occasionally involving full thickness of skin, regular (equal depth at origin till end), multiple, often parallel, usually not on vital or sensitive areas, usually on left side of body (in right handed person), no corresponding cuts in cloths are seen.

13. How to identify post-mortem ant bite marks and whether they can be confused with abrasion injury?

Ant bite marks are identified by being superficial ulceration with scalloped and serpiginous margins with absence of underlying bleeding. Although some lesions may not be associated with surrounding inflammatory changes (as in case of bite after 2-3 hours) but slight inflammatory changes in some lesions may be present if bitten immediately or within 2-3 hours of death.

They can be mistaken for antemortem abrasions. Linear ant bite lesions around neck may resemble ligature abrasions.

14. Whether the scrotum swelling due to haemorrhage can be only due to direct trauma to testicles?

Not always; the scrotum swelling due to bleeding could be possible extension of retroperitoneal hematoma as retroperitoneal haemorrhage may present as reddish brown swollen scrotal mass. Due to nearly closed retroperitoneal compartment the physical findings may be rare or sometimes misleading during presentation of patients with retroperitoneal haematoma. Retroperitoneal haematoma could happen spontaneously. This spontaneous haemorrhage in concealed space in retroperitoneum may be a potential complication of DIC (Disseminated Intravascular Coagulation) which itself is a known life threatening complication of severe sepsis (generalized infection in

body). The patients suffering from diabetes mellitus or other infection especially who require ventilator support, remains vulnerable to develop sepsis & there by causing spontaneous bleeding in retro-peritoneum, the extension of which in testicles may present as scrotal swelling

15. How to differentiate between suicidal and homicidal cut throat?

		Suicidal cut throat wound	Homicidal cut throat wound
1	Situation	Left side of neck	Usually on both sides.
2	Level	High, above the thyroid cartilage	Low, on or be low the thyroid cartilage.
3	Direction	Above downwards and from left to right in right handed person.	Transverse or from below upwards
4	Numbers of wounds	Multiple, superficial, parallel and merge with main wound.	Multiple, cross each other at deep level.
5	Edges	Usually ragged due to overlapping of multiple superficial incisions.	Sharp and clean cut.
6	Hesitation cuts	Present	Absent
7	Tailing	Usually Present	Usually absent
8	Severity	Usually less severe	More severe
9	Other wounds:	Often present across the wrist, thigh, knee but rarely on neck.	No wounds on wrist, but several injuries on head and neck.

10	Defence wounds	Not Present	Present
11	Hands	Weapons in hands due to cadaveric spasm	Fragments of clothing, hair, etc. in hands
12	Weapon at crime scene	Present	Usually absent
13	Vessels	Carotid artery escapes injury	Jugular vein and carotid artery are likely to be cut.
14	Blood stains	On the mirror, front of body and clothes, above down wards & splashes over feet.	If asleep; runs downwards on both sides of neck.
15	Clothes	Not cut or damaged	May be cut, disarranged, torn or loss of buttons.
16	Circumstantial evidence	Quiet place, locked room, usually stands in front of mirror, suicidal note may be found.	Crime scene would be disturbed.

16. How hemorrhagic pancreatitis creates confusion while interpreting blunt force abdominal trauma?

The presence of erythematous skin patches over loin region (which is suggestive of Grey turner sign; edema and bruising like appearance) and around umbilicus (which is suggestive of Cullen's sign) which are indicative of retroperitoneal haemorrhage associated with pancreatitis. The sudden appearance of these findings without fever is also suggestive of haemorrhagic traumatic pancreatitis, which could be possible by blunt force trauma to abdomen. This kind of injury may be possible if a person falls on a blunt projecting object or a blunt projecting object is forcefully applied over the abdomen. The external impact of injury may remain obscure due to laxity of anterior abdominal wall and the clothes.

C

Heart Attack (Myocardial Infarction)/ Heart Diseases

17. Is it possible that the patient may remain asymptomatic before the heart attack?

It is possible that the patient may remain asymptomatic and without any significant recognisable sign of coronary artery disease before presenting with acute myocardial infarction. This is also called silent MI (Myocardial Infarction) which may be commonly seen in diabetic patients.

18. Whether myocardial infarction could always be confirmed at autopsy?

Identifiable signs of myocardial infarction may not be visible on autopsy as they may not be visible in a short span of time between appearance of event and the death.

19. What is RHD? Whether patient may die due to RHD at young age?

Rheumatic heart disease (RHD) usually appears in young age. Involvement of different heart valve is a late complication of RHD, possible complications of which could be heart failure.

20. Whether the disease RHD may remain silent or undiagnosed?

Patients with chronic MR (Mitral Regurgitation - back flow of blood due to disturbed structure of valve) can remain asymptomatic for years. However, if the patient survives the acute episode or has slowly progressive worsening of MR, the left lower heart chamber is able to develop compensatory changes. Symptoms are therefore either absent or slowly progressive over many years. Symptoms may be difficult to ascertain in patients who are sedentary. Even MS (Mitral stenosis-narrowing of valve) may remain silent for decades. The outcome after Mitral Valve surgery is poorer in patients with a preoperative ejection fraction of less than 60% than in those with higher ejection fractions. If severe pulmonary hypertension develops, average survival is less than 3 years. Appropriate diagnosis, management, and follow-up of these patients are imperative to reduce long-term morbidity and mortality.

21. Whether is it possible to have no significant autopsy findings in a patient died due to heart attack?

In some individuals chest pain (angina) coupled with symptoms consistent with development of an acute myocardial infarction occurs immediately prior to sudden collapse and death. At autopsy, however there is no infarct and the coronary arteries are found to be patent without significant atherosclerosis or congenital anomalies. The death is believed to be due to transitory coronary artery spasm.

22. What is the most common cause of sudden cardiac death in young adults?

Hypertrophic cardiomyopathy is one of the most common cause of sudden otherwise unexplained death in young adults. Many patients may remain stable over many years of observations and some may improve. Most of such cases may be genetic in origin.

23. Whether after having clear history of hypertension and medications at the time of entry in the jail and thereafter non-recording of blood pressure or not seeking to confirm the diagnosis amounts to provision of inadequate patient care, if the person subsequently dies due to cerebrovascular accident (CVA)?

Yes. Despite having clear history of hypertension and medications at the time of entry in the jail, non-recording of blood pressure or not seeking to confirm the diagnosis, when the patient is in custody; is suggestive of inadequate patient care. CVA is commonly due to thrombotic occlusion consequent to atherosclerosis or due to bleeding in brain. CVA has frequent association with systemic diseases such as hypertension and diabetes and is their direct known complication.

24. Whether abnormally enlarged heart due to HCM can remain asymptomatic for long time and could suddenly cause death?

The clinical spectrum of hypertrophic cardiomyopathy (HCM) is complex and includes a variety of disease pattern, which leads to different types of manifestations. Although most of the patients are asymptomatic, a significant proportion of them will develop symptoms

D

HIV (Human Immuno-deficiency Virus) infection

25. What are the stages of HIV infection?

The HIV infection generally progresses through three stages. The 1st stage of Acute HIV infection which presents with flu like illness and may last for 2-4 weeks. The 2nd stage is of HIV Inactivity or dormancy. The patient may not have any symptoms during this phase, which may last for a decade but some may progress faster. The 3rd stage is of AIDS (Acquired Immuno-Deficiency Syndrome).AIDS is the most severe currently recognised consequence of HIV (Human Immuno-Deficiency Virus) infection which is characterised by destruction of immune system, resulting in a series of severe and untimely fatal, opportunistic infections and malignancies. The signs and symptoms are those of the presenting illness due to unusual secondary infections. There is no physical finding which is specific to HIV infection. HIV also behaves like a slow virus infecting central nervous system.

26. After how much time HIV infected patient may develop AIDS?

A person infected with HIV may develop AIDS in a variable time, but majority takes 5-10 years.

27 Whether HIV infection is curable?

Although there is no cure for HIV but with good and continued adherence to ART (Anti-Retroviral Therapy) the progression of HIV can be slowed to near halt.

28. Which is the commonest opportunistic infection in HIV?

Tuberculosis remains the most common opportunistic infection in person infected with HIV.

29. Whether the patient who is suffering from HIV infection may remain asymptomatic for a long period? Whether AIDS may present as neurological manifestation?

The patient may remain asymptomatic for months before the disease becomes evident clinically which poses a great diagnostic and therapeutic challenge.Involvement of nervous system is common and serious manifestation of AIDS and may be the sole or earliest manifestation of HIV infection. Later on multiple organs may be involved.

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30. When the treatment for HIV is initiated in a patient presented with tuberculosis?

Anti-retroviral Therapy (ART) is usually started as soon as the patient starts tolerating treatment for tuberculosis.

31. What do we mean by "window period" in HIV infection?

The period from the time the virus enters the human body until detectable levels of HIV specific antibodies appear is called the 'window period' or 'acute infection phase.' During this period, an individual is infected and is also infectious to other individuals. Antibody levels are not detectable during this phase of the infection, rendering the person sero - negative, i.e., tests for detecting HIV antibodies are negative. The time frame of this period ranges on average from 3 weeks to 3 months. During the window period for detection, the p24 (Gag) protein is used as a diagnostic test for HIV infection. However, PCR is the test of choice since the p24 antigen detection test is relatively less sensitive. The use of 4th generation screening kit in which both HIV antigen (p24) and both antibodies, IgG and IgM are detected have the advantage of further reducing the window period.

32. Whether thalassaemia patients are prone to HIV infection?

Children with thalassemia are at risk to HIV infection because they receive multiple blood transfusions. Prevalence of HIV infection in thalassemia varies greatly worldwide, from less than 1% to more than 20%. The risk of transmission of HIV due to blood transfusion may be alarming due to high seroprevalence of anti HIV–1 viz; 0.5% in blood donors. Patients with a HIV Positive report must be referred to the nearest ART centre for care, support and treatment.

E

Tuberculosis (TB) and other Respiratory Illnesses

33. What are the directions of NHRC regarding periodic medical examination of the prisoners?

All the prison inmates should have periodic medical check-up particularly for their susceptibilities to infectious diseases and the first step in that direction would necessarily be the initial medical examination of all the prison inmates either by the prison and Government doctors and in the case of paucity or inadequacy of such services, by enlisting the services of voluntary organizations and professional guilds such as the Indian Medical Association. Whatever be the sources from which such medical help is drawn, it is imperative that the State Governments and the authorities in-charge of prison administration in the States should immediately take-up and ensure the medical examination of all the prison inmates; and where health problems are detected to afford timely and effective medical treatment.

34. What symptoms necessitate investigation for tuberculosis?

Early suspicion of disease like tuberculosis which is very common in India especially when the patient presenting with un-resolving fever and respiratory symptoms. In such cases chest X-ray should be used as a screening tool and a sputum test for confirmatory microbiological diagnosis of TB. Enhanced case finding should be undertaken in certain "high risk" populations such as prisoners.

It has been commonly observed during medical investigation at NHRC, the prescription of prisoners generally lack proper history taking about the duration of cough and examination findings. But simultaneously the antibiotics (suggestive of respiratory infection) were being prescribed on multiple occasions. This practice creates doubt in the mind of investigators about non initiation of timely screening for TB.

It is suggested that in prison, history taking and examination findings should be done as well as properly recorded. In cases of unreliable history (which may often be a case at prison), multiple episodes of respiratory infections over a short duration of 1-2 months or non-resolving respiratory symptoms/infection (cough>2 weeks) should also be taken as indication for TB screening. History of contact with prisoner having tuberculosis should also be investigated for TB.

35. What is caseation necrosis? Whether finding of it on autopsy is specific for tuberculosis?

Caseation" (means cheese like) refers to a form of necrosis that, to the naked eyes appears cheese-like ("caseous"), and is typically (but not uniquely) a feature of the granulomas of tuberculosis. The caseous look may also be associated with necrotizing granulomas. The identification of necrosis in granulomas is important because granulomas with necrosis tend to have infectious causes. Therefore an autopsy finding of caseous necrosis may not always be suggestive of TB but it may be suggestive of chronic infectious lung disease with massive pleural effusion as a complication which may lead to respiratory failure as cause of death.

36. What is asthenia?

Prolonged infections in the body such as tuberculosis can lead to asthenia (excessive weakness) due to their debilitating effect on the muscles and it could be a natural cause of death.

37. What is DOTS? What is the role of patient in treatment of tuberculosis?

The current internationally accepted therapy by Directly Observed Treatment, Short-Course (DOTS) for drug-susceptible TB consists of multiple antibiotics and is lengthy. Adherence and compliance are critical for optimal efficacy of these drug regimens. There remains a more respectful and active role of the patient in disease management. In exceptional situations, the DOTS approach of facilitating adherence might not achieve its objectives, since patients need to make themselves available for treatment and are less likely to do so if they are imprisoned or suffer medication side-effects.

Some inmates may be afraid to come forward, fearing the repercussions of a diagnosis of tuberculosis, such as the stigma tuberculosis brings with it, a transfer to another facility or a delay in their release. Sometimes inmates may not be allowed to seek care because of their place in the internal hierarchy among the prisoners.

Other reasons for delay in diagnosis could be

- Not aware of the severity of symptoms
- Not having a previous satisfactory experience with the health system

- Cannot leave work (overlapping work hours with medical facility working hours
- Difficulties with transportation/distance to clinic
- Do not like attitude of medical workers
- Do not want to find out that something is really wrong
- Do not trust medical workers

38. What is tubercular meningitis? What are the chances of dying due to TBM?

Tubercular meningitis (TBM: tubercular involvement of brain covering) is still one of the common infections of central nervous system (CNS) and poses significant diagnostic and management challenges, more so in the developing world. Despite modern anti-tuberculosis treatment (ATT), 20% to 50% of patients still die, and many of the survivors have significant neurological deficits. About 10% of patients who have tuberculosis develop CNSdisease. TBM is a serious CNS infection associated with significant mortality and high morbidity among the survivor. Most factors found to correlate with poor outcome can be directly traced to the stage of the disease at the time of diagnosis. The only way to reduce mortality and morbidity is by early diagnosis and timely recognition of complications and institution of the appropriate treatment strategies. However, still the most challenging aspect is early diagnosis with certainty.

39. If TB is treatable?

It is curable but despite treatment, pleural adhesions, shrinking of lungs due to fibrosis, pneumonia, weakness, bronchiectasis (permanent destruction of walls of airways in the lungs) and cor pulmonale (heart problem arising due to long standing diseased condition of lungs) are the known complications after pulmonary Koch's (TB) in a non-responsive/resistant case.

40. Whether miliary tuberculosis is difficult to diagnose?

Miliary TB still remains a perplexing disease that continues to confuse the most experienced clinicians and is a diagnostic and therapeutic challenge. Mortality from this disease has remained high despite effective therapy being available. Delay in diagnosis and consequently, delayed initiation of specific anti-tuberculosis treatment appears to be

the most important factor responsible for mortality in miliary TB. The varied clinical manifestations, atypical radiographic findings and difficulties in establishing TB as the aetiological diagnosis, among others, are challenges in diagnosis and treatment of miliary TB. The typical chest radiograph findings may not be evident till late in the disease. Patients with miliary TB classically present with fever with evening rise of temperature for several weeks duration, anorexia, weight loss, weakness and cough. However, fever may be absent and the patients may present with progressive wasting strongly mimicking a metastatic carcinoma. Dry cough and dyspnoea are often present.

41. Can pulmonary tuberculosis be misinterpreted as lung cancer at autopsy?

Yes, I have encountered a case in which the convict presented with respiratory complaints within 1 week of his entry in the prison and then after about 5 weeks, he presented with haemoptysis, cough with expectoration and chest pain. For which he was referred to medical college and subsequently to RNTCP (Revised national tuberculosis control program) centre where x-ray and CT scan were also done. He was diagnosed as having pulmonary tuberculosis and was put on Category -1 ATT (anti-tubercular treatment). But subsequently he developed chest complication (pleural effusion) and lung collapse and expired during treatment.

The post-mortem report mentioned lung findings as "well defined tumour mass on apical region placed at central region on right main bronchus". Tuberculosis is well known as a diagnostic chameleon and can resemble carcinoma of lung. The well defined tumour mass on apical region of lung without any infiltrative appearance and absence of metastatic findings in the surrounding, other lung or abdominal viscera is not consistent with the findings as seen in a patient dying due to carcinoma lungs. Especially in absence of histo-pathological diagnosis of the diseased condition of lungs, the post-mortem diagnosis based upon gross post-mortem findings may be more so a misinterpretation. The findings in this case were more corroborating with the clinical/ante-mortem diagnosis of pulmonary tuberculosis.

42. How tuberculosis progresses in a patient suffering from it?

The disease starts in the lungs after inhalation and has its most frequent manifestation in the lungs: pulmonary tuberculosis. The predominant feature of tuberculosis is the formation of abscesses. As long as these abscesses are contained, there is no risk of transmission (closed tuberculosis). But if these abscesses break through into the airways, the infectious content will be coughed up (open tuberculosis). Abscesses (pus filled cavities) contain billions of bacteria. People with open tuberculosis are highly infectious. More than half of people with tuberculosis eventually become infectious.

The blood stream can carry bacilli to other parts of the body, where they may cause serious illness, such as meningitis or septicaemia. Almost all organs can be affected. This occurs in about 15–20% of people with tuberculosis.

The risk of becoming infected and subsequently developing tuberculosis disease depends upon a number of risk factors. In prison these risk factors reinforce each other. The longer a prisoner is incarcerated the higher becomes the risk of developing tuberculosis.

43. Whether person suffering from acute pneumonia may suddenly die?

Patients with pneumonia may be at risk of sudden cardiovascular collapse within the first 72 hours.

44. Is it always possible to find bacterial growth in pleural effusion due to pneumonia?

The microbiology report which shows no bacterial growth in pleural effusion may be suggestive of syn-pneumonic effusion which may be sterile. Virus & fungus can also cause Pneumonia in addition to bacteria.

45. What is severe acute respiratory syndrome (SARS)?

The short duration of symptom of breathlessness, pleural effusion and tachypnoea are suggestive of "severe acute respiratory syndrome".

F

Liver diseases

46. What could be the problems in diagnosis and treatment of viral hepatitis?

The clinical features of chronic hepatitis are extremely variable and clinical course of viral hepatitis is unpredictable. The patient may experience spontaneous remission or may have indolent disease without progression for many years. Conversely some patients have rapidly progressive disease that may develop liver failure and hepatic encephalopathy within a few years. The variable presentation of the disease poses diagnostic and treatment related challenges.

47. Whether the death due to chronic liver disease can occur all of a sudden without showing any symptom /recognizable signs or not?

The characteristic clinical consequences of liver disease are: jaundice, cholestasis (scratch marks due to pruritus), hypoglycaemia, fetor hepaticus, palmar erythema, spider angioma, hypogonadism, gynaecomastia, weight loss, muscle wasting, cirrhotic liver, ascites, splenomegaly, haemorrhoids, caput medusa in abdominal skin, oesophageal varices, gastro-intestinal bleeding, hepatic encephalopathy, multi-organ failure etc. Whatever the sequence, 80% to 90% of liver function capacity must be eroded before liver failure ensues. Chronic liver disease is the most common route to liver failure ultimately leading to cirrhosis. It is very unlikely for a person to die suddenly due to chronic liver disease in absence of any of the signs of liver failure.

48. Whether cirrhosis may remain silent or asymptomatic for a long period? Or can cirrhosis develop all of a sudden?

All forms of cirrhosis may be clinically silent. When symptomatic they lead to non-specific clinical manifestations like loss of appetite, weight loss, weakness, osteoporosis and in advanced disease frank fibrillation (severely disturbed heart function) may develop.

The ultimate mechanism of most cirrhotic deaths is

1. Progressive liver failure,
2. Complication related to portal hypertension or
3. Development of liver cancer.

49. Whether liver disease can be diagnosed at its onset?

There is often a long time interval between liver disease onset and its detection. The symptoms may take weeks, months or even years to develop. It is very unlikely to develop it all of a sudden. Conversely liver may be injured and heal without clinical detection. Hence patients with liver abnormalities who are referred to specialists in liver disease most frequently have chronic liver disease.

50. Whether there is a possibility of diagnostic difficulty in HCV infection?

HCV (Hepatitis C Virus) infection is common among intravenous drug abuser. But acute HCV infection is generally undetected clinically as it may remain asymptomatic. Cirrhosis may develop 5 to 20 years after acute infection. Diagnostic difficulties arise in HCV infection because of the nature of infection

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HEAD INJURY AND BLEEDING IN BRAIN

51. If a person can die due to head injury after falling from standing position?

Falls are extremely common, the severity not necessarily being directly related to the distance that the person falls. Many people die after falling from a standing position. Yet others survive a fall of many meters. Fall from standing position can occur if a person is drunk, from an assault, during illness (such as fit or faint) etc. death can follow from a head injury, especially on to the back of the head. An occipital scalp laceration or fracture of the skull is not necessary to be present for cerebral damage (often frontal countercoup) to occur. There may also be a subdural or less often extradural haemorrhage, the later more common from a fall on the side of the head.

52. What are primary and secondary brain injuries? If the secondary brain injuries are preventable?

Primary brain injury is caused at the time of impact. This include diffuse axonal injury, concussion, contusion and laceration.

Secondary brain injury results from disturbances of brain by the traumatic event. It is subsequent or progressive brain damage developing as a result of primary brain injury. Hypoxia and hypotension are the two most common acute and treatable mechanisms of secondary injury. Types of secondary injuries includes: collection of blood/clot in the cranium, brain swelling, ischemia (restriction in blood supply causing shortage of oxygen in the tissue), infection, seizures and metabolic disturbances. No medication exists to halt the progression of secondary injury, but various clinical conditions presents opportunities to find treatment that interfere with the damage process.

53. What is SDH (Sub dural haemorrhage)? How to differentiate between spontaneous and traumatic SDH?

In most of the subdural hematoma, bridging veins remain the commonest source of bleeding. A common finding in subdural hematoma is multiple episode of re-bleeding. Often the clinical signs include headache and confusion. The absence of scalp injury or sub-scalp extravasation of blood and other non-significant injuries is

suggestive of spontaneous subdural haemorrhage which is a natural cause of death.

54. Can subarachnoid haemorrhage be traumatic?

Traumatic subarachnoid haemorrhage (SAH) can be produced by acceleration/deceleration forces without any impact to the head. Traumatic SAH is usually present on the convexity of the brain without causing mass effect. These happen due to rupture of small blood vessels. They are often associated with underlying brain contusion but can also occur in isolation. The accumulation of blood in subarachnoid space can happen as a result of post-mortem artefact resulting from decomposition. Massive SAH at the base of brain are usually caused by rupture of vertebral or basilar aneurysm (a natural cause).

55. What is Stroke? What are its causes and whether it can cause death?

In India, nearly one-fifth of patients with first ever strokes admitted to hospitals are aged <40 years. In young adults ischemic stroke remains the commonest type of stroke. Overall, ischemic strokes account for about 80% of all strokes in India. Hypertension, electrocardiogram (ECG) abnormality, heart disease of any type, diabetes, smoking, and alcohol were associated with stroke.

Cerebral venous thrombosis and rheumatic heart disease are the leading causes of stroke among youngs in India. Tubercular meningitis leading to arteritis or autoimmune angitis is also important stroke risk factors in young. The most common symptom of a stroke is sudden weakness or numbness of the face, arm, or leg, most often on one side of the body, occurring in 90% of the strokes. A severe stroke can even cause sudden death.

56. Whether bleeding in brain can happen naturally?

Spontaneous non-traumatic bleeding in the brain substance occurs most commonly in middle to late adult life. Most are caused by rupture of small brain matter blood vessel; of which hypertension remains the most common underlying cause. Individuals with coronary heart disease, angina, or who have had a heart attack due to atherosclerosis, have more than twice the risk of stroke than those who haven't. Patients having a disease condition with increased

bleeding tendencies (low platelet/ dengue, clotting factor disorder) can also result in spontaneous bleeding.

57. Whether a patient suffering from Stroke / cerebrovascular accident may die due to aspiration pneumonia?

Aspiration pneumonia remains a possible complication (which may appear as consolidation in later stage) in a patient suffering from CVA and who is bed ridden for long period. Broncho-pneumonia could be a possible complication in a patient suffering from chronic illness like Diabetes mellitus, hypertension etc.

58. What do we mean by GCS Score?

The GCS (Glasgo Coma Scale) is a medical test which scores an individual's response to certain stimuli. It is marked out of 15. The score of 15/15 means someone is completely alert, whereas 3/15 reflects someone who is unconscious. However, just because the initial GCS was low, does not necessarily mean that the consequences will be serious and vice versa.

59. What are the criteria for admitting patients to hospital following a head injury?

As per the Multi Organizational Consensus Recommendations for India in traumatic brain injury. Available at

http://www.ntsi.co.in/Version.pdf

Following are the admission criteria

- Deteriorating GCS
- Focal or abnormal neurological signs
- Early post-traumatic seizure
- Skull fracture
- High-risk mechanism of injury
- Patients whose GCS has not returned to 15 after imaging, regardless of the imaging results
- When a patient has indications for CT scanning but this cannot be done within the appropriate period, either because CT is not available or because the patient is not sufficiently cooperative to allow scanning
- Continuing worrying signs (persistent vomiting, severe headaches,

and amnesia) of concern to the clinician

. Drug or alcohol intoxication, other injuries, shock, suspected non-accidental injury, meningism, cerebrospinal fluid leak where a scalp laceration overlies a fracture, or the person's age)

. When there is no responsible family member, caregiver or close friend under whose care the person could be discharged. 'Mild' head injuries with symptoms such as headache, photophobia, nausea and vomiting, or amnesia requiring management.

60. What are the discharge or follow up criteria in cases of head injury?

The patient can be discharged with the follow up advice, if, any of the following are present (reference as mentioned in previous query)

1. If CT is not indicated on the basis of history and examination, as long as no other factors that would warrant a hospital admission are present (drug or alcohol intoxication, concomitant injuries, shock, suspected non-accidental injury, meningism, cerebrospinal fluid leak) and there are appropriate support structures for safe transfer to the community and for subsequent care (competent supervision at home).
2. After normal imaging of the head and the patient has returned to GCS equal to 15, as long as no other factors that would warrant a hospital admission are present and there are appropriate support structures for safe transfer to the community and for subsequent care (competent supervision at home/prison).
3. After normal imaging of the cervical spine and as long as the patient has returned to GCS equal to 15 and their clinical examination is normal, and no other factors that would warrant a hospital admission are present and there are appropriate support structures for safe transfer to the community and for subsequent care (competent supervision at home/prison).
4. Do not discharge patients presenting with head injury until they have achieved GCS equal to 15, or normal consciousness in infants and young children as assessed by the paediatric version of the GCS.
5. All patients with any degree of head injury should only be transferred to their home/prison if it is certain that there is somebody suitable at home to supervise the patient.

6.Discharge patients with no caretaker at home/prison only if suitable supervision arrangements have been organized, or when the risk of late complications is deemed negligible.

61. What is lucid interval?

Classically, trauma is associated with a concussive loss of consciousness. The patient may awaken from this to achieve a good level of consciousness (lucid interval) only to lose consciousness again from brain stem distortion caused by the clot growth. If the bleeding is very severe there is no lucid interval. The person may remain active for a period varying from few hours to a week. It happens in 30-40% of cases. Lucid interval can also be seen in subdural hematoma, fat embolism syndrome or mental illness.

62. Whether cervical vertebra (neck bone) can fracture by its own without trauma? What could be the cause of death in cervical vertebrae fracture?

The long duration of symptom of neck pain in absence of any trauma to neck with fracture of cervical vertebrae is suggestive of pathological fracture (due to natural disease process). Cardiovascular disturbances are the leading causes of morbidity and mortality in both acute and chronic stages of spinal cord injury consequent to cervical fractures. After spinal shock resolution, in spinal cord injury above T6, generates autonomic dysreflexia, a life–threatening hypertensive bouts with compensatory bradycardia, after noxious stimuli or bladder or bowel distension. Distended bladder is the possible complication in such cases. Cardiac dysfunctions and autonomic dysreflexia remains a possible cause of death in spinal cord injury consequent to cervical vertebral pathological fracture.

H

Mental illness, Epilepsy (Fits), Alcohol, Organophosphorus poisoning and Drug Abuse

63 If a mentally ill person can be retained in jail?

As per the NHRC directions, no mentally ill person should be permitted to be continued in any jail. If any mentally ill person is detained in jails and NHRC invariably in every such case will award compensation to the mentally ill persons or members of the family.

64. If a patient suffering from psychiatric illness may die due to infection?

The cause of death in such case could be septicaemia consequent to lungs infection and bed sores which are possible complications in a psychiatric patient suffering from psycho-affective disorder whose insight is deranged and food intake is irregular.

65. What are the prohibited procedures not to be done on mentally ill person as per the Mental Healthcare Act, 2017?

These are

(a) Electro-convulsive therapy without the use of muscle relaxants and anaesthesia;

(b) Electro-convulsive therapy for minors;

(C) Sterilisation of men or women, when such sterilisation is intended as a treatment for mental illness;

(d) Chained in any manner or form whatsoever

66. Whether the cause of death may remain undetermined in deaths associated with epilepsy?

Yes, cardiac pathologic conditions indicative of myocardial injury have been reported in association with sudden unexplained death in epileptic patients as well. In patients with no significant coronary artery disease, myocardial infarction can occur following seizure activity, especially in patients with lower myocardial functional reserve. However, the victim of seizure disorder may die with no apparent immediate cause and the mechanism is obscure.

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67. What happens in a seizure (Fits) ? Whether injuries are possible during seizure?

The episodic impairment of consciousness and muscular control may occur even in absence of a clinical seizure in a patient suffering from seizure disorder. In addition, muscular incoordination and side effects of anti-epileptic drugs may contribute to the risk of injuries in a patient with seizure disorder. Some studies have shown that patients with seizure disorder are more frequently admitted to the hospital following an injury. The patients with seizure disorder are more likely to die as a result of an accident than non-epileptic patients. The most common injuries in these patients remain trivial injuries like contusions, wounds, abrasions and head concussions.

68. Whether not screening for epilepsy and not providing treatment of epilepsy & non-referral to specialist in a case of prisoner who upon entry in jail gives history of fits (but not documented) subsequently dies due to heart attack or epileptic fit; may amount to provision of inadequate patient care?

If only history of epilepsy was available at the time of health screening upon entry in the prison, the provision of antiepileptic treatment is not mandatory in such cases.

As per the guidelines of Indian epilepsy society

1. Antiepileptic drug (AED) therapy should be started only after the diagnosis of epilepsy is confirmed.
2. Treatment should be initiated following the occurrence of two or more unprovoked seizures, after discussing the risks and benefits of treatment with the person/family members.
3. If seizures continue despite trial with two AEDs, patient should be referred to a specialist for evaluation.

69. What are the characteristic features of alcohol withdrawal? When does alcohal withdrawal develops after its cessation?

Alcohol withdrawal is characterized by tremors of the outstretched hands, tongue or eyelids, sweating, nausea, retching or vomiting, tachycardia or hypertension, excessive purposeless physical activities, headache, insomnia, malaise or weakness, transient visual/ tactile or auditory hallucinations or illusions, and generalized seizures. These features develop on recent cessation or reduction of alcohol after

repeated, and usually prolonged and/or high-dose use.

Alcohol withdrawal typically develops 6 to 8 hours after the cessation of drinking. Trembling/shaking is usually one of the earliest signs of alcohol withdrawal. The psychotic and perceptual symptoms begin in 8 to 12 hours after cessation of alcohol use. The withdrawal reaches peak intensity on the second or third day, and markedly diminishes by the fourth or fifth day. Alcohol withdrawal can cause significant illness and death.

70. What are the important aspects of general physical examination in suspected alcohol dependence?

A thorough general and systemic examination must be carried out for all patients with alcohol dependence. Physical examination can reveal features of alcohol intoxication or withdrawal (described in the previous query).

Additionally, physical examination helps identify presence of physical complications associated with alcohol use. Since patients with alcohol dependence may suffer from other medical disorders, physical examination helps identify the associated medical conditions. One needs specifically to look at:

- Pulse: Could be low (intoxication) or high (withdrawal)
- Blood Pressure could be low (intoxication) or high (withdrawal or hypertension as a medical complication)
- Pallor: Seen in co-morbid anaemia
- Icterus: Indicative of hyperbilirubinemia (hepatic dysfunction)
- Generalised oedema: Indicates hypoproteinaemia (due to hepatic dysfunction)
- Abdomen examination: Look for hepatomegaly, ascites and signs of portal hypertension (caput medusa)

71. What are the investigations useful in a case of alcohol dependence?

Investigations along with indications in a patient with alcohol dependence (list is not all inclusive)

Investigations	Indications
Haemoglobin	Nutritional deficiency
Peripheral blood smear	Nutritional deficiency
Total Leucocyte Count and Differential Leucocyte Count	Infection (possible cause of delirium)
Blood glucose	Hypoglycaemia (possible cause of delirium)
Serum electrolyte levels	Dyselectrolytemia (possible cause of delirium)
Serum bilirubin	Hepatic dysfunction
SGOT/ SGPT	Hepatic dysfunction
Prothrombin time	Hepatic dysfunction
Serum albumin/ globulin ratio	Hepatic dysfunction
CT scan- Head	Head injury (possible cause of delirium)
USG abdomen	Hepatic damage
Upper Gastro -intestinal tract endoscopy	Oesophageal varices
Fibroscan	Cirrhosis of liver

72. What is delirium tremens? Whether it is a life threatening condition?

The development of acute psychosis in a patient with history of sudden cessation of alcohol intake in a chronic alcoholic patient is suggestive of the condition called delirium tremens. Delirium tremens develops between 2- 5 days of cessation of alcohol use, but can appear even up to a week after stopping alcohol use.

Yes, it could be life threatening. Delirium tremens (DT) is the most severe form of ethanol withdrawal manifested by altered mental status (global confusion) and sympathetic overdrive (autonomic hyperactivity: sweating & tachycardia), which can progress to cardiovascular collapse. Only about 5% of patients with ethanol withdrawal progress to DT. Patients with disturbed liver and kidney function tests are more at risk for deaths. Though, myocardial infarction due to occlusive coronary artery disease could also be a coincidence with delirium tremens. Delirium tremens should be managed in inpatient setting.

73. Whether the drug addiction such as of heroin could be a factor in causing death?

Medical consequences of chronic injection use of heroin include scarred and/or collapsed veins, bacterial infections of the blood vessels and heart valves, abscesses (boils), and other soft-tissue infections. Many of the additives in street heroin may include substances that do not readily dissolve and result in clogging the blood vessels that lead to the lungs, liver, kidneys, or brain. This can cause infection or even death of small patches of cells in vital organs. Immune reactions to these or other contaminants can cause arthritis or other rheumatologic problems. All intravenous drug abuser are susceptible to serious infections.

The four sites most commonly affected are skin, heart valve, liver and lungs. Viral hepatitis remains the most common infection among addicts. The chronic drug addiction is also associated with variable psychological/psychiatric problem which contributes to self-neglect. All these factors contribute to significant suffering and can lead to death.

74. Whether a person who has consumed alcohol may die suddenly due to aspiration?

At autopsy caution must be observed before labelling death due to aspiration of vomit, as this is a common agonal phenomenon in deaths from other causes. Where an otherwise healthy person dies with high blood alcohol concentration in these circumstances, however, gross blocking of trachea and bronchi with vomit forms one of the most convincing arguments for acceptance of aspiration as the cause of death if no other factors can be identified.

75. How to identify heroin withdrawal?

The symptoms of heroin withdrawal can include hyperalgesia, photophobia, goose flesh, diarrhoea, tachycardia, increased blood pressure, abdominal cramps, joint & muscle pain, anxiety, yawning, insomnia and depressed mood. A person who is chronically consuming heroin in whatever form is very much predisposed to go through withdrawal syndrome.

76. How overdose of drugs can cause death?

Users gradually increase the drug intake as tolerance grows. When tolerance develops to effects like euphoria, the increased drug intake may be dangerously high and may lead to respiratory depression, coma and death.

The purity of illegal drugs like heroin can only be guessed at. A user may use the same quantity as usual but may unknowingly take an overdose if the quality is superior to what he has been using so far.

A combination of alcohol and sleeping pills is particularly dangerous. While alcohol is readily absorbed and the effect is felt immediately, sleeping pills take longer to act. The user may continue to drink alcohol under the impression that he is not "high"enough. Later on resulting overdose can cause death.

77. After how much time features of organophosphorus poisoning appears?

In fatal cases the symptoms begins in ½ hour and death results in ½ to 3 hours. In non-fatal cases, the effect last for about 30 hours and fade off in the next 48-72 hours. Occasionally the symptoms last up to 3 weeks.

The symptoms will be according to route of entry the respiratory or gastro-intestinal symptoms are more marked. However most common symptoms are vomiting, constricted pupil, pulmonary edema, giddiness, abdominal pain, excessive sweating, salivation, lacrimation and stupor. Symptoms may also include severe muscular weakness, mental confusion, diarrhoea, tenesmus, delirium, areflexia, incontinence, bronchorrhoea, convulsion, electrolyte imbalance, shock or coma. Kerosene or garlic like smell has been observed in cases of diazinon poisoning.

78. What is the fatal dose of organophosphorus compounds?

Tetra ethyl pyrophosphate (TEPP) is the most toxic and Hydroxy - ethoxy phenyl - thymine (HEPT) the least. The single dose that will produce symptoms is 5mg intramuscular or 25 mg orally, while 45-50 mg of TEPP intramuscular or 25-100mg orally will be fatal. About 80mg of parathion given intramuscularly or intravenously or 25-175mg orally will also be fatal to an adult weighing 70 kgm.

79. What could be the post - mortem appearance in organo - phosphorus poisoning?

The post-mortem findings could be congested face, oro-nasal blood stained froth, acute pulmonary edema and sometimes soft flabby heart. Stomach contents are sometimes blood stained with mucosal congestion and sub-mucous petechial haemorrhages. In few cases petechial haemorrhage is seen in brain.

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Firearm & Explosion

80. Under what circumstances gun powder/blackening could be detected around the entry wound?

The grains of gun powder ejected from muzzle of a fired weapon may strike the skin and produce powder tattooing of the skin. Different types of gun powder exist based upon their physical configuration: flake, disc, cylindrical, ball and flattened ball. The modern gun powders are mostly smokeless and consists of nitrocellulose (single base) or nitrocellulose combined with nitro-glycerine (double base). The ball powder may travel up to 3 feet and cylindrical powder may travel up to 2 feet. The gun powder present in the form of "powder tattooing" is suggestive of close range discharge of firearm. The gun shot residue may also be deposited on skin or items in close proximity to a weapon being fired.

The blackening effect is produced by combustion of gun powder. Blackening is usually found, if a firearm is discharged from close range like a revolver or pistol discharged within about two feet. Blackening with a high power riffle can occur up to about one foot.

The interposition of clothing will have an effect on the appearance of the wound, acting as a barrier which may prevent deposition of soot (blackening) or the tattooing.

81. What is abrasion collar, grease collar and dirt collar in firearm entry wound?

The skin immediately around the central hole is discoloured which is called abrasion collar. The inner edge of the abrasion collar may be black as a result of heating effect and to the rubbing off of dirt, lubricating oil or grease. This is often called grease or dirt collar. It may be absent if the missile was clean and has no relation with the range of firearm weapon.

82. How a victim of explosion may die?

The victim may die due to

- Blast effect
- Impact of projectiles derived from explosive device
- Impact from surrounding objects and debris impelled by the explosion
- Burn from hot gases
- Secondary injuries from falling masonry, beams and furnishings dislodged by the explosion.

J

Death After Vaccination, During Labour & Instrumental Delivery

83. What are the questions which should be investigated in cases of death after vaccination?

1. Whether the injection was at correct site?
2. Whether vaccine storage, transport and administration were faulty?
3. Whether vaccines were found to be of standard quality by laboratory?
4. Whether any contraindication for vaccination was ignored?
5. Whether death was due to anaphylaxis?
6. Whether death was coincidental to vaccination?
7. Whether death was directly consequent/directly attributable to vaccination?
8. Whether cause of death was aggravated by vaccination?

84. Whether the progression of labour (child birth process) is always predictable even in an uncomplicated pregnancy?

The progression of labour is commonly unpredictable. Due to prolonged 2nd stage of labour, there is always a chance of potential complications like fetal hypoxia & acidemia leading to birth asphyxia, failure of presenting part to rotate or descend appropriately leading to obstructed labour. Non-cooperation from the patient side may unnecessarily contribute to delay in smooth progression of labour.

85. Whether putting pressure upon the womb to facilitate the birth process (delivery) is still in practice?

Practice of putting pressure on womb was commonly employed in the past in an attempt to assist spontaneous vaginal delivery and avoid prolonged 2nd stage of labour or the need for operative delivery. However some professionals do follow such practice now a day also. But as per the guidelines for standardization of labour rooms at delivery points (April 2016) MOHFW, Govt of India, application of fundal pressure is included in the “don'ts” list as it is now considered harmful practice.

86. What documentation of clinical record is essential for investigation of deaths associated with instrumental deliveries?

The clinical record should include below mentioned information-

- Indication for intervention
- Record of discussion with the woman of the risks, benefits, and options
- Position and station of the fetal head, as well as how it was assessed (i.e., vaginally and/or abdominally)
- Amount of moulding and caput present
- Assessment of maternal pelvis
- Assessment of fetal heart rate and contractions
- Number of attempts and ease of application of vacuum or forceps
- Duration of traction and force used
- Description of maternal and neonatal injuries.

K

Torture, Suicide and Sexual Assault

87. What is beating and how it can lead to death?

Beating is one of the most common forms of torture and can take many forms, varying both with the weapon used and the part of the body injured. Unless severe and repeated, beating is not often the sole cause of death, though this can occur from haemorrhage, sepsis, injured internal organs, or from sheer exhaustion and pain in an already debilitated victim. The blows may be inflicted by fist or foot, but are more often applied with a weapon. The use of a whip or lathi-like instrument is common, but metal or wooden bars, clubs, batons, rifle butts or belts may be used.

88. How a suspected offender could die while being detained / overpowered by police personnel?

- Traumatic asphyxia (prevention of respiratory movements) may occur where several policemen fall upon a resisting subject to overpower him.
- Arm-locks or neck-holds applied by police officers to resisting persons are other causes of deaths during arrest.
- Postural (positional) asphyxia has been reported to have caused sudden deaths in persons after the use of the 'hogtie', 'hobble' or prone maximal restraint and even in situations where a person has been placed in a prone position in the rear compartment of a police car. Acute intoxication by alcohol or drugs, are responsible for the sudden deaths of individuals placed in this position.
- Head injuries may occur during a scuffle from falls either against the ground, or against a wall or other obstruction. A heavy punch in the face may cause nasopharyngeal bleeding that can block the air passages, especially in a person affected by alcohol. A blow on the side of the neck can cause reflex cardiac arrest or a bleeding around brain.
- Alcohol is a frequent cause of death in custody. Acute alcoholic poisoning may lead to death while the victim is thought to be 'sleeping it off' in a police cell. At lower blood alcohol levels there is still the risk of aspiration of vomit and choking on gastric contents.

Alcohol also contributes to accidents during custody, especially head injuries. Falls onto a hard surface are often on the occiput and the frequent finding of frontal and temporal contre-coup brain damage at autopsy is good evidence of a deceleration injury rather than an assault with a weapon.

- Some falls may occur during custody or in transit from the site of arrest to the police station – others have happened before arrest, but the ill-effects and death may become manifest during the stay in the police cell, when the police are often blamed either for allowing or causing the injury – or for not summoning or providing urgent medical attention.
- Drugs overdose or hypersensitivity deaths are occasionally seen amongst offenders.
- Death may be from purely natural causes, usually cardiovascular in origin, which happened to have occurred during detention. It must be admitted, though it is almost impossible to provide objective proof, that the emotional and sometimes physical upset of being arrested and confined may have affected the blood pressure and heart rate sufficiently, by an adrenaline response, to have precipitated an acute cardiac crisis in the presence of severe pre-existing disease (diabetes, epilepsy, asthma or other diseases).

89. What do we mean by deliberate self-harm (DSH) & suicidal attempt? How to identify the signs suggestive of DHS?

Deliberate self-harm and suicidal attempt which are considered high risk behaviors and the negative outcomes of which could be fatal, grievous injury or person may frequently come in conflict with law as in this case non-compliance with the jail rules. The cause of deliberate self-harm could be mental illness, substance abuse, personality problem or manipulative behaviour. Most commonly noted deliberate self-harm could be

1. Superficial cuts
2. Head banging
3. Swallowing non-edible materials
4. Scratching
5. Opening old wounds

Different studies have shown that self-injury occurs regularly and recurrently in a subset of prison inmates. Many a time such behaviour occurs under drug intoxication, depression, frustration and as an avenue to release their pent up emotions. There are prisoners who indulge in deliberate self-harm (DSH) to seek attention from the prison staff, co-prisoners and family members. Though DSH is not lethal but it is a strong predictor of repetition of DSH and attempted suicide in near future. So it becomes necessary to seriously take each case of DSH and evaluate it. Attempting suicide is no longer a crime in India with the health ministry notifying on May 29, the Mental Healthcare Act 2017.

When a violent prisoner is being restrained officers involved and the person supervising must look out any of the following signs

1. Exceptional or unexpected strength
2. Unusual rise in body temperature
3. Exceptional violence
4. Abnormally high tolerance for pain
5. Noisy or laboured breathing
6. Sudden or abnormal passivity
7. Coughing or foaming from the mouth
8. Face, lip, arms or legs becoming blue/purple or very pale

90. How to manage an event of Deliberate self-harm?

Two levels of supervision are generally recommended for those at heightened risk for DHS/suicide.

1. Close observation: It should be considered for inmates not actively suicidal but who are expressing suicidal ideation or have a self-destructive behaviour. Intervals between observations do not exceed 15 minutes.
2. Constant observation: It is for those who are deemed to be at high risk of suicide such as those actively engaging in self-harm or there is behaviour of imminent self-harm. The observation should be continuous and uninterrupted.

The intervention policy should be three fold:

1. The medical staff should be CPR/First aid trained and necessary aid

should be given.

2. All staff should ensure the scene is secure.
3. All staff should not presume an inmate is dead, but continuous life saving measures should be given until relieved by medical staff.

ABC analysis of behaviour during each event of self-harm/attempted suicide:

- Each event may be recorded in this format of ABC chart.
- This will be helpful in understanding the behaviour in a given situation.
- Consistent pattern of behaviour could be identified.
- This chart will be helpful to make a proper plan of management. The plan of management needs to be under the supervision of professionals including medical, prison staff and other concerned.

S. No	Date & time of problem behaviour & total duration	**A**ntecedent (that immediately precedes a problem behaviour	**B**ehaviour (observed high risk behaviour)	**C**onsequences (for the person involved, other people or on property)	**Comments** (action taken such as reason for use of force, behavioural counselling/ medical treatment, referral, punishment, anger management/life skill training, stress management/yoga /meditation	**SIGNATURE**
1.						
2.						
3						
4						

91. What is the role of medical advice during the restrain of a prisoner in aggression/ Deliberate self-harm?

The prison staff should be given as much information as is ethically possible without breaching the medical code of practice. The following information may benefit staff and prisoners during an incident. If such advice exists, it must be acted upon immediately.

1. Has the prisoner any medical condition that may increase the risk of a medical emergency?

2. Is the prisoner taking any medication that may increase the risk of medical emergency?
3. Age, size and weight of the prisoner

92. How the accusations that apparent suicidal hanging were in reality homicides, can usually be resolved?

It could be resolved by conducting detailed autopsy showing no signs of bruising, abrasions or a struggle. It would seem impossible to hang a conscious person against his will without leaving some signs of restraint.

93. How suicides are possible in custody and how to prevent it?

Suicide in custody is not uncommon, and often leads to accusations and recriminations from the relatives over lack of supervision. The prisoners should not be provided with belts, braces (suspenders), cord or even bootlaces, which could be used to hang him in his cell. In addition, the police cell may be specifically designed to avoid any convenient suspension points, such as hooks, bars or even internal door handles. In spite of these precautions, prisoners regularly manage to find some means of killing themselves. Strips of bedding material, sleeves of clothing and handkerchiefs have all been used for self-suspension. Hanging can be successfully accomplished by traction on the neck at low levels and need not occur from high suspension points, so prisoners have killed themselves by attaching ligatures to bedheads, chairs and other unlikely objects in the cell.

94. Who can be sent by prison staff to mental health professional for assessment of suicide?

An inmate

1. Who is intoxicated/or has a history of substance abuse or treatment for any mental illness
2. Who expresses unusually high levels of shame, guilt and worry over the arrest and imprisonment
3. Who expresses hopelessness or fear about the future or show signs of depression such as crying, lack of emotions or lack of verbal expressions

4. Who admits to having a thought about suicide or had previously attempted suicide
5. Who is currently suffering from psychiatric illness or acting in an unusual or bizarre manner such as difficult to focus attention, talking to self, hearing voices.
6. Who have few internal or /external supportive resources.
7. Who has a history of suicidal risk as communicated by arresting or transporting officer or previous jail record

95. How to identify if a person is in aggression and what could be the underlying reasons of aggression in prison inmates?

There are some warning signs (not an exhaustive list) of aggression, which should be observed to identify a person in aggression.

1. Standing tall
2. Red faced
3. Raised voice
4. Rapid breathing
5. Direct prolonged eye contact
6. Exaggerated gestures

It is equally important to identify the reason of aggression, which could be

1. Frustration
2. Perceived unfairness
3. Feeling of humiliation
4. Immaturity
5. Excitement
6. Learned behaviour (it gets results)
7. Reputation
8. Means to an end
9. Decoy

96. What are the warning signs related to positional asphyxia which restraining officer should always keep in mind so that the person being restrained may not get unintentional suffocation?

During physical restraint there are some warning signs related to positional asphyxia. These are:

1. An individual struggling to breath or complaining of being unable to breathe
2. Evidence of report of an individual feeling sick or vomiting
3. Swelling, redness or blood spots on the face or neck
4. Marked expansion of the veins in the neck
5. Individual becoming limp or unresponsive
6. Changes in behaviour
7. Loss or reduction in consciousness
8. Respiratory or cardiac arrest

97. Whether skin disease condition can create confusion while interpreting the findings in an alleged case of sexual assault?

Yes, I have encountered a case of minor girl with alleged history of sexual assault. The injuries (7 abrasions) mentioned in examination report were of very small size (pin point). The alleged date of incidence of sexual assault was 10/10/17. The Dermatologist's report dated 18/10/17 mentioned complaint of itching all over the body since 8 days, aggravation on exposure to cold & on examination multiple excoriated discrete papule on bilateral extremities were noted along with single well defined plaque was present on right buttock. The condition was diagnosed by dermatologist as Allergic contact dermatitis with T. Corporis. These dermatologist's findings were corroborating with the findings of forensic examination dated 10/10/17. Presence of this corroboration suggested that the scratches mentioned in the forensic examination report could be possibly due to her disease condition.

Based upon absence of genital injuries, absence of any other physical injuries & FSL report negative for presence of semen/spermatozoa, it could be concluded that there were no signs suggestive of penetration of vagina/anus or sexual assault.

L

CARDIOPULMONARY RESUSCITATION (CPR)

98. What should be the minimum duration for which a person should be resuscitated before death declaration?

CPR discontinuation should be based on clinical condition of the patient. Once the reversible causes have been ruled out and/or corrected, based on clinical judgment and a careful assessment, a decision may be taken to discontinue CPR. The presence of rhythm such as Ventricular Fibrillation/pulse less Ventricular Tachycardia should prompt to continue the resuscitation attempts. End tidal Carbon dioxide (EtCO2) has been suggested a good sign of perfusion and thus can be used for prognostication in intubated patients. It may be suggested that with high-quality CPR and rhythm as asystole for >20 min, EtCO2 <10 mmHg may be considered a sign to forgo further attempts. In patients without such monitoring, a definite time frame is not suggested and duration should be based on clinical decision. The final decision to start and stop resuscitation would also be based on the overall clinical assessment. So it can be concluded that if the heart is still not beating even after a good CPR, the effort for CPR should be at least of more than 20 minutes duration in any case.

99. What are the common causes which could lead to cardiac arrest requiring assessment and management for an optimal outcome after CPR?

The more common causes requiring assessment and management can be remembered with the mnemonic 'HIT THE TARGET' (H – Hypoxia, I – Increased H Ions [Acidosis], T–Tension Pneumothorax, T–Toxins/Poisons, H – Hypovolaemia, E – Electrolyte Imbalance [Hypo-/Hyperkalaemia], T –Tamponade Cardiac, A – Acute Coronary Syndrome, R–Raised Intracranial Pressure [Subarachnoid Haemorrhage], G – Glucose [Hypo-/hyperglycaemia], E–Embolism (Pulmonary Thrombosis), T–Temperature [Hypothermia]). In a hospital setting, many other cardiac and non-cardiac causes could also lead to cardiac arrest and should also be sought based on pre-existing clinical diagnosis, history, clinical signs and appropriate investigations.

M

COMPREHENSIVE HEALTH SCREENING OF PRISONER AT THE TIME OF ADMISSION TO PRISON

100. What all should be part of health screening of the prisoner at the time of admission in the jail?

The following information should be recorded about the health condition of the prisoner upon admission in jail.

Proforma for health screening of prisoner upon admission to Prison

Case No..... Name ..... Age .....years
Father's/Husband's Name.....
Sex: Male/Female/Other
Occupation .....
Date & Time of admission in the prison…….....
Identification mark:.....
Consent for examination &Investigations:(signature)…….....
Thumb impression.....
Date and time of medical examination:
Examined by Doctor: Sign & name in capital letters.
If any communication/language barrier between doctor and prisoner:
Chief complaints (if any):
Previous History of illness
Past H/O TB/DM/HT/Psychiatric illness:
Past h/o any surgical operation:
Are you suffering from any disease? Yes/No
If so, the name of the disease:
Are you now taking medicines for the same?
Are you suffering from cough that has lasted for (2 weeks or more) Yes/No
History of drug abuse, if any/Craving for any drug
Any information the prisoner may volunteer:

Physical examination:

1. Height..... cms. .....Weight..... kg Last menstruation period .....
2. Pulse Rate: ...../ min
3. Breathing Rate:..... /min
4. Febrile/afebrile: ....., temperature:.....
5. Blood Pressure:..... mmHg
6. Skin ailment:
7. Pallor: YES/NO
8. Lymph Mode enlargement: YES/NO
9. Clubbing: YES/NO
10. Cyanosis: YES/NO
11. Icterus: YES/NO
12. Injury if any

    Description: Name of injury size site Pattern

    1.
    2.
    3.

    (Use more space if required)

13. Blood test for Hepatitis/STD including HIV (with the informed consent of the prisoner whenever required by law)
14. Any other
15. Systemic Examination
    1. Nervous System
    2. Cardio Vascular System
    3. Respiratory System: auscultation
    4. Eye, ENT
    5. Gastro Intestinal system/abdomen
    6. Teeth & Gum
    7. Urinal System

The medical examination and investigations were conducted with the consentof the prisoner after explaining to him/her that it was necessary for diagnosis and treatmentof the disease from which he/she may be suffering.

Date of commencement of medical investigation:
Date of completion of medical investigation:

SCREENING FOR MENTAL ILLNESS

Mental State Examination

General appearance and behaviour: Gait incoordination, abusiveness, dressing pattern, smell of alcohol from the body or during conversation Psychomotor activity: Increased or decreased

Speech: Coherence/relevance

Affect: Irritable, depressed thought:

Presence of any delusions, ideas of hopelessness, helplessness, worthlessness, suicidal ideation and risk

Perception: Visual/auditory hallucinations

Orientation: Disorientation to time/place/person in alcohol withdrawal delirium

Attention and concentration, memory, intelligence, abstraction Judgment-intact/impaired Insight Level of motivation.

SCREENING FOR HIV/TB if response to any of the below is yes, then initiate HIV screening blood test after consent and for TB initiate sptum for AFB and chest x-ray.

1.	H/O Drug abuse	Yes/No
2.	Injection marks	Yes/No
3.	Involved in sexual violence as per record	Yes/No
4.	Presence of tattoo	Yes/No
5.	If underweight	Yes/No
6.	Chronic cough/fever/night sweats >2 weeks	Yes/No
7.	Any non-healing wound	Yes/No
8.	H/O Blood transfusion	Yes/No

Screening for Alcohol dependence

1. CAGE Questionnaire: Items are

1. Have you ever felt that you should cut down on your drinking?
2. Have people annoyed you by criticizing your drinking?
3. Have you ever felt bad or Guilty about your drinking?
4. Have you ever had a drink first thing in the morning to steady your nerves or get rid ofa hangover (Eye-opener)?

Interpretation# Answering Yes to 2 questions – Strong Indication for alcohol dependence Answering Yes to 3 questions – May be taken as evidence for alcohol dependence.

2. AUDIT (Alcohol Use Disorders Identification Test) Read questions as written. Record answers carefully. Begin the AUDIT by saying "Now I am going to ask you some questions about your use of alcoholic beverages during this past year. "Explain what is meant by "alcoholic beverages"by using local examples of beer, wine, vodka, etc.

Code answers in terms of "standard drinks". Place the correct answer number in the box at the right.

AUDIT Questionnaire

1	How often do you have a drink containing alcohol?	(0) Never [Skip to Qs 9 -10]	(1) Monthly or less	(2) 2 to 4 times a month	(3) 2 to 3 times a week	(4) 4 or more times a week
2	How many drinks alcohol do you have on a typical day when you are drinking?	(0) 1 or 2	(1) 3 or 4	(2) 5 or 6	(3) 7 to 9	(4) 10 or more
3	How often do you have six or more drinks on one occasion?	(0) Never	(1) Less than monthly	(2) monthly	(3) Weekly	(4) Daily or almost daily
4	How often during the last year have you found that you were not able to stop drinking once you had started?	(0) Never	(1) Less than monthly	(2) monthly	(3) Weekly	(4) Daily or almost daily
5	How often during the last year have you failed to do what was normally expected from you because of drinking?	(0) Never	(1) Less than monthly	(2) monthly	(3) Weekly	(4) Daily or almost daily
6	How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?	(0) Never	(1) Less than monthly	(2) monthly	(3) Weekly	(4) Daily or almost daily
7	How often during the last year have you had a feeling of guilt or remorse after drinking?	(0) Never	(1) Less than monthly	(2) monthly	(3) Weekly	(4) Daily or almost daily
8	How often during the last year have you been unable to remember what happened the night before because you had been drinking?	(0) Never	(1) Less than monthly	(2) monthly	(3) Weekly	(4) Daily or almost daily
9	Have you or someone else been injured as a result of your drinking?	(0) No		(2) Yes, but not in the last year		(4) Yes, during the last year
10	Has a relative or friend or a doctor or an-other health worker been concerned about your suggested you cut down?	(0) No		(2) Yes, but not in the last year		(4) Yes, during the last year

Skip to Questions 9 and 10 if total score for questions 2 and 3 = 0

Interpretation- Total scores of 8 or more are recommended as indicators of hazardous and harmful alcohol use as well as possible alcohol dependence. AUDIT scores in the range of 8-15 represent a medium level of alcohol problems where as scores of 16 and above represented a high level of alcohol problems.

Suggested Readings and References

Standard treatment guidelines available on website of clinical establishment act.

2. Guidelines for investigating deaths in custody, International Committee of the Red Cross, October 2013.
3. Custodial Deaths - An Overview of the Prevailing Healthcare ScenarioY S Bansal, **Murali G, ***DalbirSingh J Indian Acad Forensic Med, 32(4).
4. Guidelines for the management of epilepsy in India by Indian Epilepsy Society.
5. Knight's Forensic Pathology, 3rd Edition, Hodder Arnold
6. THE PRISONS ACT, 1894, Ministry of Law, Government Of India.
7. Prisons and Health, edited by Stefan Enggist, Lars Møller, Gauden Galea and Caroline Udesen, World Health Organization, Regional office Europe.
8. Guidelines for operative vaginal birth, SOGC clinical practice guidelines, No.148, August 2004.
9. Robbins and Cotran, Pathologic basis of disease, 8th Edition.
10. Medical Certificate & Its Value In Court Of Law Under Forensic Science, Naveen Aladia, 2017 IJEDR | Volume 5, Issue 4 | ISSN: 2321-9939.
11. Medical Records Manual: A Guide for Developing Countries, Revised and updated 2006, World health Organisation, Western Pacific Region.
12. Civil Liability for Inadequate Prisoner Medical Care – An Introduction, 2007 (9) AELE Mo. L. J. 301 Jail & Prisoner Law Section – September, 2007.
13. Model Prison Manual for the Superintendence & Management of prisons in India, BPRD, MHA, Govt. of India.
14. Writ Petition (civil) 559 of 1994, State of AP & Others vs R.D. Upadhyay Date of Judgement13.04.2006, Supreme Court of India.

OATH ON HUMAN RIGHTS

I.....do solemnly swear that, I will follow, preserve, protect and defend "human rights", meaning the rights relating to life. liberty, equality and dignity of the individual as guaranteed by the Constitution or embodied in the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights ands uch other Covenant or Conventions adopted by the General Assembly of the United Nations as the Central Government may, by notification, specify as enforceable by Courts in India from time to time.

That, in the course of performance of my duties, I shall spread awareness of human rights.

That, I shall act against, and/or report, to the concerned authorities, any violation of human rights or abetment thereof or negligence In the prevention of such violation, by a public servant, that comes to my notice.

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सर्वे
भवन्तु सुखिनः

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