UNITED STATES DISTRICT COURT
DISTRICT OF NEBRASKA

HANNAH SABATA, et al., **Plaintiffs,** **v.** **NEBRASKA DEPARTMENT OF CORRECTIONAL SERVICES, et al.,** **Defendants.**	**Case No. 4:17-cv-03107-RFR-MDN** **CLASS ACTION** **EXPERT DECLARATION OF MARC F. STERN, M.D., M.P.H. IN SUPPORT OF CLASS CERTIFICATION**

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I, Marc Stern, M.D., M.P.H., declare as follows:

1. I am a board certified internist specializing in correctional health care. I have managed health care operations and practiced health care in multiple correctional settings. Most recently, I served as the Assistant Secretary of Health Care for the Washington State Department of Corrections.

I. PROFESSIONAL QUALIFICATIONS

2. In the course of my career I have regularly investigated, evaluated, and monitored health care delivery systems in correctional institutions on behalf of a variety of parties including federal courts; the Office of Civil Rights and Civil Liberties of the U.S. Department of Homeland Security; the Special Litigation Section of the Civil Rights Division of the U.S. Department of Justice; and state departments of corrections and county jails.

3. On behalf of the National Commission on Correctional Health Care (NCCHC), until 2013, I taught the Commission's correctional health care standards semi-annually to correctional health care administrators at NCCHC's national conferences. I authored a week-long curriculum commissioned by the National Institute of Corrections of the U.S. Department of Justice to train jail and prison wardens and health care administrators in the principles and practice of operating safe and effective correctional health care operations, and was the principle instructor for this course at its inception. Additional details of my education, teaching and work experience, publications, and cases in which I have offered testimony in the past 4 years, are contained in my Curriculum Vitae. A true and correct copy of my *curriculum vitae* is attached as **Exhibit 1**.

II. ENGAGEMENT

4. I have been retained by plaintiffs' counsel as an expert in correctional health care to evaluate and provide my expert opinion concerning the health care provided to the plaintiffs and others incarcerated within the Nebraska Department of Correctional Services ("NDCS"). For the purposes of the current declaration, I have been asked to consider whether and, if so, how the health care policies and practices of NDCS impact all plaintiffs, putting them all at a substantial risk of serious harm, regardless of their individual medical histories.

5. I am being compensated for my work in this matter at a rate of $300 per hour.

III. STANDARD OF CARE

6. To evaluate NDCS policies and practices, I used as a benchmark the standard of care for medically necessary care in the community. I considered national standards for correctional health care, such as those of the National Commission on Correctional Health Care and the American Correctional Association, to the extent that in some situations they provide a guide to what is necessary, but not necessarily sufficient, for safe health care. I used my extensive experience operating, examining, monitoring, advising operators of, publishing scientific articles regarding, and teaching about, health care operations in jails, prisons, and immigration detention centers, as well as my extensive experience directly and indirectly caring for patients inside and outside correctional institutions, to interpret and apply the standard of care to facts I collected. The facts or data I considered in forming my opinions below are contained within this report. A list of the documents I reviewed and upon which I relied appears in **Exhibit 2**.

IV. METHODOLOGY

7. I used a number of data sources to arrive at my opinions.

8. I visited NDCS on November 5 through November 9, 2018, visiting one facility each day in the following order: Nebraska Correctional Center for Women ("NCCW"), Diagnostic and Evaluation Center ("DEC"), Lincoln Correctional Center ("LCC"), Nebraska State Penitentiary ("NSP"), and Tecumseh State Correctional Institution ("TSCI"). I spent a total of 53 hours touring these facilities.

9. During each visit, I toured the facility. Generally the tour included: one or more general population housing units; the isolation housing unit; specialized housing units, if they existed, such as mental health housing; the Skilled Nursing Facilities ("SNF"; located at DEC, NSP, and TSCI); the observation of medication administration ("pill line") at all facilities except NSP; and the health care unit.

10. I conducted numerous interviews during each tour. I participated in briefings with prison administrators and the health care authority or their designee. During my walk-abouts, I spoke directly with front-line custody staff and supervisors. I conducted approximately 40 patient interviews, some with groups, some with individuals. Patients were generally chosen at random[1] during housing unit (general population, specialized units, isolation, SNF) visits.

11. During the visit, I also reviewed medical records of current residents. I ultimately reviewed medical records for approximately 50 current residents, in addition to the records of the Named Plaintiffs. Some records I was only able to review on site, while others were produced in enough time to allow me to review them electronically after my tours. I chose medical records to review based on a number of triggers: Chronic Care Log; Emergency Room ("ER") Trip Log; and Hospitalization Logs. I reviewed the medical records of three current residents who I

[1] Patients were chosen from among those who were present at the time I visited the housing unit, without using any specific selection criterion. Technically, this research methodology is called a "convenience sample."

interviewed during my visits. I also chose three patients who were referred to me by Plaintiffs' counsel. I chose specific cases using the method of purposive sampling. Purposive sampling is the appropriate scientific method to use in this situation because it assures that (1) the review is focused on individuals who actually make use of health care services; (2) those services are commonly provided services; and (3) those services are substantive, i.e., services that would present a risk of harm if poorly provided.

12. I generally limited my review to care provided from 2013 to the present, except where review of earlier care was necessary for understanding care during the time period of interest. Further, for patients with a longer history of care, I gave more weight to more recent conditions.

V. SUMMARY OF OPINIONS

13. Based on my review, I have reached a number of preliminary opinions regarding the medical care provided to NDCS patients. I have identified system-wide failures in NDCS policies and practices, which together evidence a broken medical system that creates a substantial risk of serious harm to all NDCS patients. These system-wide policies and practices include (1) problems with staff deployment and performance (including improper use of nursing staff; inappropriate use of inmate porters (pursuant to AR 115.02), who provide direct clinical care and are given access to other prisoners' confidential medical records; poor clinical decision-making and practice by healthcare professionals; and failure to have a reliable system in place to ensure medical orders are followed); (2) delayed and flawed intake screenings; (3) problems with access to care (including emergent care, urgent care, non-urgent episodic care, and chronic care; care for prisoners in isolation; and care for patients requiring interpreter services); (4) fundamental flaws in medication administration; (5) insufficient medical records; and (6)

deficient management (including a poor quality monitoring and system improvement; and poor leadership and oversight).

14. The systemic flaws I have identified are caused by improper or ineffective written policies and by improper or ineffective practices on the ground. The problems that the Named Plaintiffs have experienced and continue to experience with NDCS's broken medical system are typical of the problems I would expect to see as a result of the flaws I detail below. In my experience, these flaws can be remedied, but must be addressed in a systemic fashion.

15. I include a limited number of examples to illustrate the deficiencies I identified. The number of examples included in a particular section is not indicative of the number of incidents I found. They are not intended to be an exhaustive list of the instances in which a problem occurred, but instead are intended simply to help illustrate the patterns I identified during my review.

16. My opinions in this report are based on the information available to me at this time. I reserve the right to supplement or modify my opinions as more information becomes available. This report should not be taken as an exhaustive list of the opinions I will reach in this case. My opinions provided in this declaration are focused on the class-wide impact of NDCS health care policies and procedures on plaintiffs and should not be read as limiting the opinions concerning deliberate indifference and substantial risk of serious harm that I may offer in subsequent declarations. I will note that although I reviewed medical records on site during my visits, NDCS did not provide copies of the medical records from LCC in enough time for me to conduct a meaningful re-review of the facts related to cases I cite here.

VI. OPINIONS

A. Relevant NDCS Policies

17. NDCS has a series of written Administrative Regulations ("ARs") that apply to all of its facilities and relate to the provision of medical care. Many facilities have implemented Operating Memoranda as well, though as a general matter they largely appear to mirror the ARs. In addition, there are Medical Procedures, Nursing Procedures, and Nursing Treatment Protocols that are used in all NDCS facilities. (*See, e.g.*, Deposition of Dr. Harbans Deol, Medical Director of NDCS ("Deol Dep.") 117:18-118:7). I use the term "policies" to refer to these five groups of documents. NDCS employs a number of policies that are either improper on their face or implemented in a manner that results in a risk of serious harm to patients. I discuss these deficiencies throughout my declaration.

18. For example, NDCS policies on Use of Force Care and Health Screenings are deficient on their face, as they allow licensed practical nurses ("LPN") to fulfill some of the requirements of the policies. *See* Paragraph 93. In addition, NDCS policies regarding hunger strikes (AR 115.13),[2] tuberculosis ("TB") screening (AR 115.15), the use of Inmate Porters (AR 115.02), screening of Inmate Interview Request forms ("IIR"s, or requests for health care; AR 115.04), and continuous quality improvement (AR 115.01, AR 101.04 and Medical Protocol 36) are deficient on their face. *See* Paragraphs 43, 28, 74-76, 125-131. These policies, which apply to all NDCS facilities, put patients at risk of serious harm.

[2] NDCS policies regarding hunger strikes are deficient, creating a danger for individuals who participate in this behavior. First, according to AR 115.13 Hunger Strike, Section I.A, the only mechanism for recognizing a hunger strike is if the resident announces it (active route). The policy fails to recognize that residents might not eat and might not announce it. This might occur, for example, with a mentally ill patient. Thus the policy should also allow for a second (passive) mechanism: custody staff noticing that the patient is not eating. Second, AR 115.13 Hunger Strike, Sections I. H. & J. envisions that at the end of a hunger strike, the resident should just start eating in his/her own. This is highly dangerous and could lead to death. The resident needs to be transferred to the SNF and start to resume eating very slowly with close monitoring including blood tests.

19. In other areas, deficiencies stem from a lack of clear policy guidance. For example, there is no clear policy on the training to be provided to new nursing staff. *See* Paragraph 24. Similarly, as I discussed elsewhere, Dr. Harbans Deol, NDCS Medical Director, has acknowledged NDCS has no policy specifying the timeframe in which IIRs are to be triaged or the timeframe in which a patient is to be seen post-triage. *See* Paragraph 79. There is also a lack of clear policy guidance and conflicts between policies with regard to medication administration and refusals, as I discuss in paragraphs 106-111.

20. Finally, the implementation of policies, such as the Health Screenings, Examinations, Appraisals & Review policy (AR 115.05) and the Nursing Treatment Protocols, results in a serious risk of harm to patients at all facilities due to the improper deployment of LPNs. I discuss this in depth in paragraphs 21-27.

B. Staff Deployment and Performance

1. Use of Nursing Staff

21. To assess and care for patients, a correctional health care system should employ Registered Nurses ("RN") to assess patients and establish a nursing care plan. Health care staff with lesser training and credentials, such as LPNs, do not have the expertise or experience to assess patients or establish a nursing care plan on their own. When they are allowed to do so without proper oversight, patients are put at a substantial risk of serious harm.

22. NDCS's improper and dangerous use of nursing staff permeates nearly all aspects of care. In a typical prison health setting, one may find Registered Nurses ("RNs") and Licensed Practical Nurses ("LPNs"**)**. Though both called "nurses," LPNs are fundamentally different from RNs. LPNs typically receive only about 1.5 years of post-high school training in a vocational or community college program whereas nurses typically receive four years of post-high school

training in a college bachelor's degree program. The difference in their resultant capabilities are well-captured by most states' laws. Nebraska's law is typical. It distinguishes between RNs and LPNs in two critically important domains, among others. The first domain is "assessing." Assessing is the activity by which a medical professional seeks out and then analyzes the various pieces of patient data surrounding a patient's complaint (history and symptoms, observations and examination, test results) to arrive at a conclusion or nursing diagnosis (the "assessment"). The second domain is designing a nursing care plan (treatment) based on the assessment. RNs may independently assess patients,[3] whereas LPNs may only *contribute* to assessing the patient's condition[4]. RNs may independently establish a nursing care plan,[5] whereas LPNs may only *participate* in the development of a plan.[6] In other words, LPNs may not independently assess a patient and may not independently create a nursing care plan.

23. All NDCS facilities employ both RNs and LPNs. NDCS generally deploys LPNs interchangeably with RNs. In NDCS facilities, an LPN can be found as the sole health care professional at a prison at night or can be found managing a patient encounter, *independently*, in emergencies, urgencies, and non-urgent episodic care. NDCS utilizes two mechanisms which may be intended to – but do not – replace the requisite training, expertise, and legal licensure for LPNs to safely operate at the level of an RN or provide safe care independently. Based on my experience in other facilities, this generally happens due to one or more of the following factors:

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[3] Nebraska Laws 2007, LB463, § 768 38-2212 (2) (a) Assessing human responses to actual or potential health conditions; (b) Establishing nursing diagnoses.

[4] 38-2211 (2) (a) Contributing to the assessment of the health status of individuals and groups; (b) Participating in the development and modification of a plan of care.

[5] 38-2212 (2) (d) Establishing and maintaining a plan of care; (e) Prescribing nursing interventions to implement the plan of care.

[6] 38-2211 (2) (b) Participating in the development and modification of a plan of care.

difficulty recruiting RNs; cost saving by hiring LPNs (because they are paid a lower wage than RNs); and failure on the part of management to appreciate the legal and training-based limitations of LPNs.

24. **First**, NDCS provides newly hired LPNs with on-the-job training to learn how to independently manage the broad spectrum of simple and complex problems which arise in the prison setting. The training provided is deficient as a general matter, and as noted above, cannot replace the training, expertise and legal licensure of an RN. Depending on the facility, NDCS provides between three days (TSCI) and 4-6 weeks (NCCW) of such training. This inconsistency in training programs may result, in part from lack of clear and specific policy guidance, and in part from lack of adherence to even that insufficient guidance. The sole guidance I could find in ARs, protocols, or procedures is contained in Nurse Procedure N-2 Nursing Orientation/On the Job Training, which states, "NDCS new employees will have at least 4 weeks orientation (scheduled with a regular staff member) up to 12-weeks orientation prior to being independent in the correctional setting." This is vague and unclear. However, even in its vagueness, the three days of orientation provided at TSCI is less time than the Procedure envisions. At TSCI, a supervisor also provides "a few hours" of additional didactic time reviewing Nurse Treatment Protocols. Following this training, LPNs are allowed to manage a broad spectrum of medical problems independently. Training to allow a healthcare professional to manage medical care independently normally requires 4 years of formal schooling for an RN and 6-11 years of formal schooling for a practitioner.[7] It is impossible to conclude that LPNs can safely care for patients independently.

[7] In this report I use the term "practitioner" to refer to any health professional with medication prescribing authority: medical physician, psychiatrist, nurse practitioner, physician assistant, or dentist.

25. **Second**, NDCS arms LPNs with Nurse Treatment Protocols ("NTP"). NTPs are one-page forms meant to enable a nurse to assess a patient and establish a nursing care plan, all independently. NDCS has 51 NTPs ranging from the "Runny/Stuffy Nose Protocol" (NTP 41) to the "Chest Pain Protocol" (NTP 9). As with the training described above, the goal of NTPs is to enable NDCS LPNs to manage a broad a broad spectrum of medical problems independently. However, a simple one-page paper form cannot replace the years of training and experience required to manage safely a range of medical problems. An example of the gross insufficiency and danger of a one-page[8] "recipe" can be found in NTP #44 Shortness of Breath. Shortness of breath may be the result of a problem with the lungs, but very often it is the result of a problem with the heart. However, NTP #44 only instructs LPNs to examine a patient's lungs, ignoring examination of the heart (other than measuring vital signs). It can be difficult to correctly diagnose a heart condition without examining the heart, and a misdiagnosis puts the patient's health at significant risk.

26. Consistent with the standard of care in other states, the opinion of the Nebraska Board of Nursing is that protocols may be acceptable tools for nurses. *See* Advisory Opinion, Nebraska Board of Nursing, Department of Health and Humans Services, Spring, 2013. However, NDCS NTPs are not designed or used in a manner consistent with this opinion.[9] First, an acceptable protocol has specific instructions, including step-by-step algorithms. Many of NDCS's NTPs do not. Second, because, according to the Board of Nursing, "A nurse may not

[8] With the 2018 revision of the protocols, NTP #44 was reformatted to two pages with almost the same content as the previous one-page version.

[9] In his deposition testimony, Dr. Deol stated that he believed NDCS's NTPs were "standing orders." (page 158) In my opinion the Nurse Treatment Protocols are indeed "protocols" as described by the Board of Nursing. However, the semantics notwithstanding, the usage of NTPs by LPNs would not be safe nor consistent with the standard of care, including the standard articulated by the Board of Nursing.

practice under standing orders or protocols that require the nurse to make medical judgments outside the nurse's scope of practice," protocols are tools to be used by RNs. This would be especially true of NDCS's NTPs which require the nurse to use a considerable amount of complex judgment.

27. Throughout this declaration I provide numerous examples of dangerous care provided by LPNs when operating independently in all the settings to which they are assigned. A great risk flows from the use of LPNs to provide emergent, urgent, and routine health services on a regular basis, well beyond what is safe based on their training, expertise, and licensure. This risk extends to all NDCS residents at all times.

2. Use of Inmate Porters

28. Based on my interview of staff, interview of **inmate porters**, and direct observation, I discovered that NDCS engages incarcerated individuals as porters to aid in the delivery of medical care in the SNFs at DEC, NSP, and TSCI. If implemented appropriately, inmate porter programs can be positive programs that provide sick patients with basic assistance while giving the inmate porters a valuable skill. It is the standard of care for incarcerated individuals to provide assistance with activities of daily living (e.g. ambulating or wheeling, eating, dressing, etc.). The program at NDCS does not meet the standard of care. While NDCS porters generally support patients in their activities of daily living, NDCS porters also conduct clinical tests on patients (measuring of vital signs, measuring blood sugar levels) and at one facility they also access the patients' medical record to enter the results. This problematic provision of direct patient care is also supported by NDCS official policy. AR 115.02 Health Personnel Management, Section VI.A (the second Section VI.A – there are two Section VI.As in this policy) allows other incarcerated individuals to "Perform[] direct patient care services [as

long as they are] trained and certified to provide such services." It is *not* within the standard of care for porters to be involved in the direct delivery of clinical care, regardless of training, nor to have access to another individual's medical record.

29. The provision of direct patient care services and access to medical records by another incarcerated individual is dangerous for two reasons. First, it places one person in a position of potential control of another through coercion. Second, it violates patient confidentiality, with the same attendant risks as I describe in Paragraph 73. NCCHC's Standard P-C-06 Inmate Workers also states, "When inmate workers are used as adjunct health staff, there is increased risk to the patient…" Interestingly, Dr. Deol also believes that porters should not be allowed to measure vital signs or make entries in the medical record, according to his deposition testimony. Deol Dep. 142:16-143:1. Yet the practice continues.

30. In summary, NDCS allows porters to monitor patient health status through the measurement of vital signs, and allows the porters access to the medical records of others. This practice puts patients at risk of harm through control and coercion by other residents and through breach of the confidentiality of their protected medical information. The dangers of this practice are limited, at any moment, to those patients in one of the male SNFs. However, any male resident might be ill enough at any point in time to find themselves in that setting.

3. Orders Not Followed

31. A basic tenet of correctional health care is that patients must receive the care that is ordered. In a safe prison health care system, nursing and other staff execute practitioner orders correctly and in a timely manner. The system in place in NDCS for assuring that medical orders are followed is unreliable. Though I was unable to determine the reason this system is broken at NDCS from my investigation to date, based on my experience in other institutions, it will be the

result of some combination of inadequate numbers of staff, inadequate level of staff (i.e. licensure and experience), inadequate policies, inadequate training, inadequate support systems such as computer trackers and reminders, and inadequate supervisions. Elsewhere in this report I provide examples of this failure as it relates to activities such as administration of medication by nurses, or escorting of patients to clinic by custody. In this section, I focus on non-medication related failures by medical staff, as illustrated in the following examples.

- Patient 28[10] at LCC was involved in a fight. He was evaluated by an LPN. He had bruising and lacerations around his head. The LPN contacted the Medical Officer of the Day,[11] who ordered for the patient to be reassessed in the morning. The order was ignored in the morning. When the patient was finally reassessed at 14:30 he was found to have a serious head injury requiring evacuation to the ER by ambulance with immobilization of his neck. He had a fracture of the skull (and could have had more serious injuries such as a fractured neck and bleeding in the brain), treatment of which was dangerously delayed.

- Patient 18 at NSP has a medical history that includes stroke, blood clots in the leg (deep vein thrombosis), asthma, and heart disease with previous open heart surgery. At 11:00 he suddenly developed chest pain, nausea, and "shaking badly." The LPN who initially managed him called the MOD who ordered the patient to be admitted to the SNF for monitoring and to recontact him/her if the patient didn't get better or got worse. At 14:00,

[10] Patient names are omitted to protect confidential health information. A confidential patient key is provided as **Exhibit 3**.

[11] As discussed in Paragraph 55, the physician on-site at a prison is generally referred to as the Medical Officer of the Day (or "MOD").

an RN examined the patient and released him from the SNF, in violation of the doctor's order.

32. In summary, medical orders are not reliably followed at NDCS. Depending on the condition being treated and the order, this can cause harm to patients. Any individual receiving care in NDCS is at risk of this harm.

4. Clinical Decision-Making

33. In this section I describe poor clinical decision-making and practice by healthcare professionals in NDCS. The sections of the report are not mutually exclusive, and thus many of the examples of subpar practice that I provide in this section could easily have been placed in other sections of the report, and *vice versa*. Generally the examples in other sections are tied to a discernable system weakness or error. In this section, I describe the clinical error.

34. Typically when clinical decision-making and practice in a prison is poor, one or more of the following underlying system weaknesses exists: understaffing; subpar salaries; inadequate policies; poor training; and inadequate supervision or oversight. I do not currently have enough information to come to conclusions about each of these potential defects. I found some evidence to suggest that facilities may be understaffed. For example, according to their respective nursing supervisors, LCC is forced to rely for the majority of its nursing force on temporary employees and NSP also is forced to rely on temporary nurses, and even then operates with empty posts. Similarly, the deposition testimony by Dr. Deol suggests that state-level organization and oversight may be weak. I reserve the right to supplement my opinions regarding underlying system weaknesses upon receipt and review of additional materials.

35. I divided the examples of clinical decision-making below into three groups. The first group describes errors in judgment or care by nurses. Due to unclear documentation, I was

not always able to determine if the nurse were an RN or LPN. The second group describes errors by MODs when contacted by facility staff during non-business hours. The third group captures errors in judgment that involve two or more professionals making decisions in tandem. The significance of this group is that one of the safety mechanisms in any complex system is that an error committed by one person or process should be caught and corrected by a redundant person or process in the system. These are examples where even the redundancy failed.

Nurses

- Patient 9 at DEC was seen by an RN for a rash on his neck. The nurse used NTP #40 Rash. Following the NTP, the nurse asked the patient if he had shortness of breath, to which he answered yes. Shortness of breath in the setting of a rash suggests that a patient might have a serious life-threatening condition, such as anaphylactic shock, which might require an injection of medication and evacuation to the ER. Thus the NTP appropriately requires the nurse to contact a practitioner immediately. Instead, the nurse ignored the instruction from the NTP, gave the patient an allergy medication and sent him on his way. The nurse thus placed the patient at serious risk of harm, including death.

- Patient 34 at LCC was seen by an RN for dizziness. He had a history of blood clots for which he was on a blood thinner. He exhibited lightheadedness when he stood up in the presence of the nurse. This symptom, especially in a patient on blood thinners raises the possibility that the patient has internal bleeding, which is a medical emergency. The nurse needed to measure the patient's orthostatic vital signs (blood pressure and pulse standing and lying) to assess for bleeding, and needed to contact the MOD immediately for further instructions. The nurse did none of this.

- Patient 5 at LCC was urgently brought to the medical unit in a wheelchair by a custody officer[12] ("CO") for chest pain and nausea. At 21:50 an RN gave the patient aspirin. At 21:56 the RN gave the patient nitroglycerin. At 22:20, due to continuing pain, the nurse finally called the MOD who gave instructions to immediately send the patient to the ER. The nurse was following the steps of NTP #9 Chest Pain. However, the intent of this protocol in the setting of a patient with chest pain severe enough to require emergency heart attack medications (aspirin and nitroglycerin) is to allow the nurse to begin treatment *simultaneously* with attempting to contact the physician. It is not intended as a diagnostic tool to see whether the patient responds to treatment before contacting the physician. In the presence of a heart attack, the nurse's 24 minute delay between when she began treatment and when she first sought assistance from the MOD would place the patient at high risk for a worse outcome (larger heart attack or death). Further, the nurse's decision-making was fundamentally flawed in that whether the aspirin and nitroglycerin caused the patient's pain to resolve or not would have had no bearing on the MOD's decision to send the patient to the ER. Thus the nurse's 24 minute delay was not only dangerous, it was purposeless.

- Patient 2 at LCC was found unresponsive by COs who called nurses emergently. When the nurse arrived, the patient was weak and was clenching his teeth. His blood sugar level was very dangerously low (38, normal approximately >60), a level that can cause death. The nurse tried to give the patient orange juice, but he refused to open his mouth, presumably due to the effects of the low blood sugar level on his brain. The nurse tried to

[12] NDCS's custody staff is comprised of correctional officers, corporals, case workers, and supervisors. For simplicity, I use the generic term "custody officer" in this report except where further distinction is relevant.

give the patient a sugar tablet, but he spit this out. His blood sugar now dipped to 26. The nurse then called the MOD. The MOD did not answer the phone, so the nurse left a message. After "20-30 min" his blood sugars increased to a safe zone (186 – 238) and he started waking up. The MOD finally called back and ordered the patient sent to the ER (due to a lack of beds in the SNF). NTP #28 Hypoglycemic Reaction, and minimally acceptable nursing practice, required the nurse to contact the MOD immediately upon discovering a patient with such a low blood sugar in the presence of mental status changes and inability to take anything by mouth. While this case ended well, if the patient's blood sugar had not increased on its own, it could have resulted in permanent brain damage or death, and the nurse's delay of 20-30 minutes before seeking assistance from the MOD could have made the difference between a good and bad outcome.

- Patient 48 at TSCI was seen by a nurse for heartburn of 1-week duration. The nurse managed the patient using NTP #24 Heartburn and treated him as if he only had an upset stomach, sending him back to his living unit. Heartburn is a symptom, and while it is usually the result of benign digestive upset, it can also be a symptom of more serious problems, such as a heart attack. Given the patient's history of diabetes, high cholesterol, and age (68) the chances of this being a heart attack increases greatly. Thus this system of care that allows nurses (and in this case, possibly an LPN) to manage a complex patient with a one-page NTP is patently dangerous,[13] as I describe in more detail in Paragraph 25. The use of the NTP, without oversight by a practitioner, resulted in the nurse simply

[13] NTP #24 does instruct the nurse to "Be Alert For Possible Cardiac Source" of the heartburn and to refer to the Chest Pain NTP. However, making the decision that the heartburn is the result of a "possible cardiac source" and that referral to the Chest Pain NTP is now needed, is itself a complex task, well beyond the training and licensure level of an LPN.

treating the immediate symptom rather than considering the much more serious underlying cause The following day the patient complained of chest pain. A nurse managed the patient, this time using NTP #9 Chest Pain[14]. At 13:29 the nurse performed an electrocardiogram, the computerized interpretation of which indicated a possible heart attack. At 14:35 the nurse administered. At some point in time, the patient was sent to the ER[15]. In the hospital, the patient was found to have a serious heart ailment.[16] The nurse's delay of at least 1 hour and 6 minutes – if not much longer, as the problem could have been identified the previous day – placed this patient's health at significant risk.

Medical Officer of the Day

- Patient 24 at LCC was brought to the medical unit by a CO concerned that the patient had stopped drinking water due to urinary urgency. Upon examination by a nurse the patient appeared acutely ill and was complaining of urinary urgency, burning on urination, and feeling cold. His vital signs were markedly abnormal (blood pressure 206/82, normal <140/80; pulse 108, normal <100; temperature 103.5, normal 98.6). A repeat blood pressure was close to normal (144/77[17]). The nurse tested the patient's urine which was abnormal ("large LE" indicating the presence of infection). This set of findings suggested that the patient was quite ill, with a problem much more severe than a simple urinary tract

[14] The nurse's documentation is poor: the NTP is missing a date and time. I inferred that it belongs to this event.

[15] This part of the documentation is also very poor. I was unable to discern at what time this occurred, who gave the order, or by what means the patient was transported.

[16] This part of the documentation is also quite poor, so I was only able to determine that a stent was placed in his heart, but was unable able to determine if this was due to a heart attack ("STEMI" or "non-STEMI") or just blocked arteries (cardiac ischemia).

[17] Though near normal, this blood pressure should have been very unexpected at this point; it most likely either meant it was an error or that the patient's condition had actually gotten worse. It should have been viewed with skepticism and been repeated, along with the other vital signs.

infection, and immediately required further evaluation and then treatment, either in the prison, or in the hospital. Instead, the MOD simply ordered for the patient to receive an oral antibiotic and have his urine tested again in the morning.

- Patient 28 at LCC was involved in a fight. An LPN evaluated him using NTP #50 RHU [Isolation Unit]. The LPN identified bruising around the patient's right eye and lacerations. She contacted the MOD. Without requesting further evaluation, the MOD simply instructed the LPN to have the patient return to his living unit and be reassessed in the morning. The LPN's description of injuries to the head suggested the possibility of head and neck injuries, injuries which can be rapidly life-threatening. Thus the MOD's decision was severely deficient and dangerous. Indeed, when the patient was finally reassessed the following afternoon (as described elsewhere, the order to reassess the patient in the morning was ignored), he was found to have internal bleeding around the eye and a tender neck vertebra. His neck was immediately immobilized to prevent a severed spinal cord, and the patient was sent to the ER where a concussion and fractured facial bone were discovered.

Two or more professionals

- Patient 35 was brought to the medical unit a few months earlier because he "almost fainted last night." He was evaluated by an LPN using NTP #14 Dizziness, Fainting or Syncopal Episode. His orthostatic vital signs were significantly abnormal (lying: blood pressure 131/96, pulse 89; standing blood pressure 127/97, pulse 109) suggesting that he might be dehydrated. The LPN wrote in the chart "no major change in BP after orthostatic BP taken." The LPN provided no treatment and told the patient a practitioner would review her note and follow up if needed. In fact the orthostatic vital signs were not

normal, but the LPN did not understand how to interpret them. Dehydration can be harmful in a number of ways, not least of which in this particular patient, was the risk of falling and injuring himself. Thus independent care under the auspices of an LPN was dangerous. The error was compounded by two subsequent errors. First, the LPN's note was not reviewed the next day as ordered. Instead it was not reviewed until 7 days later. Thus the patient remained at risk for harm this entire time. Second, when the practitioner finally reviewed the chart, despite the abnormal orthostatic vital signs, the practitioner did nothing, leaving the patient at risk.

- Patient 11 at DEC was seen in clinic by an LPN for dizziness. The nurse managed the patient independently using NTP #14 Dizziness, Fainting or Syncopal Episode. The patient stated that he also was experiencing numbness on the right side of his body. The LPN failed to obtain any other important information such as the duration of symptoms. When performing orthostatic vital signs (instructions for which are articulated in the NTP), the LPN ignored the instructions, performing the vital signs in the sitting position instead of the lying position (which significantly reduces the accuracy of the test). The LPN also tested the patient's blood sugar. It was markedly elevated (346, normal approximately <130-180). Given his symptoms, the patient may have been suffering from a serious condition, such as a stroke, and was definitely suffering from a markedly abnormal blood sugar and required emergency referral. Instead, the nurse discharged the patient without diagnosis or treatment. The nurse's errors were compounded by the practitioner who reviewed the LPN's note the following day, but also took no steps to further evaluate the patient nor treat his elevated blood sugar.

C. Intake Screening

36. Transition into a prison is an important juncture in the care of a patient. Clinical information must move across the prison threshold, along with the patient, to ensure that the patient receives all necessary care in a safe manner. Key clinical information that moves with the patient includes such items as the patient's history, current active problems and plans of care, upcoming appointments, allergies, and current medications.

37. Intake screening is complex and all individuals within a correctional system are exposed to the process. During Intake, an individual is supposed to be interviewed by an appropriately trained and credentialed health care professional who should collect information about the patient's medical history, diagnoses, and medications, and make a determination of the patient's current health status and needs, including medication needs. Intake screenings must be conducted in a timely manner, usually within minutes to hours of arrival at the facility. This is to ensure the patient is healthy enough to be admitted to the facility and to begin to provide necessary medical treatment.

38. One key piece of information is determining if the patient has active or dormant tuberculosis ("TB"). Screening for active TB is important and urgent because active TB presents an immediate risk of transmission to staff and other residents. Screening for latent TB is important for a number of reasons, including it identifies carriers of TB who may benefit from preventive treatment. For this reason screening for latent TB is less urgent than screening for active TB and is therefore usually accomplished during the first week or two after admission. Screening for latent TB is accomplished by skin testing ("PPD"), which takes at least 2 days, whereas screening for active TB is accomplished primarily through careful questioning and observation of the patient by the health care professional; skin testing is inadequate for screening

for active TB because it not only takes too long, but also can be inaccurate in some cases. Based on the information collected during questioning and observation of the patient for evidence of active TB, the professional makes a determination ("assessment") if the patient is healthy enough to safely be placed in general population (for their own safety and the safety of others). If the patient has signs and symptoms of active TB, for example, the professional would immediately quarantine the patient, placing him or her in a room with special ventilation. In the absence of active TB, during Intake (or within the next few days) the individual is screened for dormant TB with a PPD skin test or blood test; the skin test is "read" 48 to 72 hours later.

39. At NDCS all male intakes are conducted at DEC and female intakes are conducted at NCCW. I observed Intake at DEC and reviewed intake documents from DEC and NCCW. Based on my observations and review of documents, several systemic problems exist with Intake at NDCS.

40. **First**, LPNs conduct Intake screenings at NDCS.[18] Such screenings are assessments that can require considerable clinical expertise and judgment. As explained in more detail elsewhere in Paragraphs 21-27, LPNs do not have the expertise, nor are they permitted under their licenses, to exercise such judgments. Thus, by policy and practice, transitions into NDCS prisons are unsafe for individuals who are screened by LPNs.

41. **Second**, NDCS policies and practices regarding TB screening are dangerous and do not meet the standard of care. Nurses screening patients during Intake fail to adequately screen for active TB; fail to make sure the patient has not already had a positive skin test for TB in the past before injecting a patient with a new skin test; and fail to properly evaluate patients

[18] According to Dr. Deol's deposition testimony, LPNs are not allowed to conduct Intake evaluations. However, in fact, they do so (see, for example the Intake evaluations of Patient 39, Named Plaintiff Sabata and Named Plaintiff Norris).

for false negative TB skin tests. My conclusions are based on my direct observation of Intake screening, my conversation with one of the nurses who conducts them, my review of multiple Intake screenings performed on patients (examples, among the many, include Named Plaintiff Norris, screened through NCCW; Named Plaintiff Sweetser, screened through DEC; and Named Plaintiff Cardeilhac, screened through DEC), and, by design, based on the NDCS-designated screening form nurses use.

42. During intake screening, nurses ask the patient two relevant questions: Does the patient have a chronic cough?; Does the patient have a bloody cough? However, they fail to assess (by direct observation) whether the patient has a cough or evidence of loss of weight at the time of intake, and fail to question the patient regarding other symptoms: chest pain, fever, chills, night sweats, easy fatigability, loss of appetite, and loss of weight. This failure is found in both practice and written policy. Failure to properly screen a patient for active TB risks allowing the patient to be placed in a housing unit, undiagnosed. This not only puts the patient him/herself at risk for progression of a potentially fatal disease, but also puts all other residents and staff at risk for contracting the disease.

43. Nurses also fail to make sure the patient has not already had a positive skin test for TB in the past, before injecting the patient with a new skin test. A positive skin test at any point in a patient's life is sufficient evidence that the patient has had a TB infection. There is rarely any clinical value in re-testing the patient ("once positive, always positive"). The danger in repeating the skin test is that if the previous test resulted in a severe skin reaction (ulceration, bleeding, and possible pain at the test site for weeks, along with risk of infection), it is more likely that the same thing will happen if the patient is tested again. I found that nurses do not first check with the patient to determine whether they have ever had a severe reaction to a TB skin

test.[19] This practice is also endorsed by NDCS policy.[20] They thus unnecessarily subject patients to a serious side effect of testing.

44. Health care staff also fail to properly evaluate patients for false negative TB skin tests that result from a patient's waning immune response. To assess whether an initially negative TB skin test is a true or false negative, a second test TB skin tests should be performed at least a week after the first test. If repeated too soon, the result may still be negative. This would result in an error: failure to diagnose dormant TB. The patient would therefore not receive treatment for dormant TB. Treatment for dormant TB is important because some patients with dormant TB spontaneously develop active TB, which presents risks to themselves and others. The practice at DEC is for nurses to inject a second skin test if the first one is negative. However, according to an Intake nurse, they do so 3 to 5 days after arrival, which is too soon according to CDC guidelines and NDCS's own policy. As a result, patients with dormant TB may be misdiagnosed as TB-free. This failure to diagnose and treat dormant TB puts patients (and the other residents and staff around them) at risk of serious harm.

45. **Third**, there is evidence that intake screenings are not conducted in a timely manner. According to his deposition testimony, Dr. Deol expects that all individuals newly admitted to NDCS to receive his or her intake health screening within 24 hours of arrival. He

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[19] The nurse I interviewed told me she would not inject the skin test if the patient were to tell her that he has had a severe skin reaction in the past. However, this is insufficient because most patients do not understand what is happening or the risk involved, and may not think to share this information.

[20] Administrative Regulation ("AR") 115.15 Serious Infectious Disease, Section III.C.1 states "At the time of entry into NDCS, all inmates shall be tested by facility medical staff for Tuberculosis unless there is documentation of a previous positive test result. All positive tests will undergo chest x-ray." This passage is deficient in that it instructs staff to proceed with testing unless there is *documentation* of a previous positive. However, if documentation were lacking, but a patient reported a positive reaction in the past, the nurse should not proceed with skin testing without further efforts. Either the nurse needs to make sure the previous positive reaction was mild, or should check with a practitioner. For the reasons described above, this practice unnecessarily subjects patients to a serious side effect of testing.

believes that NDCS currently fails to meet this goal, achieving it in only 90% of cases. Deol Dep. 37:12-17. I did not independently confirm Dr. Deol's assertion, but assuming Dr. Deol's data is correct, the intake screening process at NDCS is dangerous. Intake screening is supposed to be accomplished as soon as possible after arrival. According to the standard of care, this translates to minutes to a very few hours. Indeed, part of the purpose of Intake screening is to assure that the arriving individual is healthy enough to be admitted and to begin any needed treatments. The Operational Memorandum governing all intake screenings for male inmates appropriately requires that initial medical screenings must be completed "immediately upon . . . arrival at the DEC." OM 115.5.3.1. In addition, AR 115.05 Health Screenings, Examinations, Appraisals and Reviews Section II.D., states that "Patients who are unconscious, semiconscious, bleeding, or otherwise obviously in need of immediate medical attention are referred. When they are referred to an emergency department, their admission or return to the facility is predicated on written medical clearance." Surely the OM and AR do not envision that the procedure to meet these goals could possibly be safe if they begin— in 1 out of 10 individuals—more than a day after arrival.

46. In conclusion, the intake screening process at NDCS presents substantial risk of serious harm to all patients, due to delays in screening, undertrained staff, and TB screening that does not meet standards of care. The evidence for these errors comes from stated NDCS procedures as well as observation of practice and review of medical records. Errors were noted with regard to named plaintiffs and others. These errors would be expected to affect any individual who enters NDCS. These errors have the potential of causing significant harm to patients directly; some of the errors—specifically those related to diagnosis and treatment of

TB—also have the potential of causing harm to other incarcerated individuals in their proximity (as well as staff).

D. Access to Care

47. Health care in prison is generally administered in two settings: outpatient and inpatient (e.g. infirmary, skilled nursing facility). Care in the outpatient setting can be further subdivided in the following categories: emergency care; urgent care, non-urgent episodic care (sometimes referred to in NDCS as "sick call"), chronic care, isolation unit-related care, and off-site specialty care (which I did not review for this report). Care in these categories is primarily distinguished by the method of access irrespective of the severity of the condition. In other words, for example, a patient may approach a CO asking to see a nurse. This is classified in my report as urgent care because the patient is making use of the urgent care pathway to access care. However, from a clinical standpoint, the patient's need might be severe and constitute a clinical emergency.

48. Once a patient accesses care, the quality of care he or she receives from health care professionals then becomes relevant. I discuss the quality of such care at Paragraphs 33-35.

1. Emergent Care

49. Provision of emergency care in the correctional setting is critically important. The standard of care for an emergency requires, among other things, that a *qualified* health care professional is available to respond to the patient's side immediately for treatment, armed with the necessary medical equipment, and following standard procedures for treatment of conditions such as cardiac arrest.

50. Most emergencies occur outside the health unit. At NDCS, when an emergency is recognized by a CO, it is the CO who triggers the emergency response system, without the

necessity of a patient request. Based on my observations and review of documents, several problems exist with emergency care at NDCS.

51. **First**, medical staff at NDCS do not always respond to medical emergencies. It is the standard of care that if medical staff are on duty at a prison facility, they will respond immediately to a medical emergency (COs are only trained to provide first aid until the arrival of medical professionals). At NSP, according to the on-site health care manager, on 6 out of 7 nights there is only one nurse on duty in the facility. Because the single nurse must remain in the SNF at all times, by design, no medical professional responds to medical emergencies at these times. Instead, COs, limited to providing first aid, transport the patient across the NSP campus on a gurney (which can be a distance of over one fifth of a mile) to the medical unit. Thus if the patient's condition is such that he requires a higher level of care than first aid, such care is delayed, which may put the patient at significant risk of harm. As NSP houses minimum, medium and maximum security inmates, any male inmate is subject to being transferred to this facility and thus subject to this significant risk of harm. I was not told of such a staffing limitation at NCCW, but I found evidence that nurses similarly do not respond to the location of a medical emergency which results in the same type of risk found at NSP, as shown in the two cases below. In the second case, not only did the nurse not respond to the emergency, she also chose to not care for the patient.

- Patient 37 has a history of heart problems. She complained of 6-out-of-10 pain in her left chest radiating to her left arm (pain that is very typical of pain caused by heart damage) while walking in the prison yard. Rather than the nurse responding to the patient in the yard, the patient was brought to the medical unit by custody. Further increasing the danger to the patient, the patient was walked to the medical unit, rather than bringing her

by gurney or wheelchair. When she was finally evaluated, it was felt that her condition was serious enough to require immediate evacuation to the hospital by ambulance.

- Patient 45 has a history of seizures. She had a seizure. Presumably as part of an emergency response, a CO contacted the nurse. A seizure is an emergency until proven otherwise, and thus the nurse should have gone to the patient's side in the living unit. Instead, the nurse instructed the CO to send the patient to the medical unit. The nurse was informed by the CO that the patient "refused" to go to the medical unit, so the nurse's plan was to have the CO execute a refusal-of-care form. While most seizures in patients with established seizure disorders are not life-threatening, once summoned, the nurse needed to at least evaluate the patient. A "refusal" in this setting cannot be assumed to be an informed refusal (which is required) because following a seizure – especially if it resulted in a head injury – a patient might not have the requisite mental capacity to make an informed decision in her own best interest. Further, as described elsewhere, in a prison environment, there may be reasons – other than a patient's volitional decision – that a patient does not report for a visit. Thus the nurse had an obligation to go to the patient's bedside and either conduct a proper evaluation, or execute a proper *informed* refusal. In this patient's case, the problems in care extended beyond the emergency in chronic care. It appears that the seizure was likely the result of the patient not getting or taking her seizure medications, something a minimally adequate evaluation of the seizure by the nurse would have revealed. Instead, I could find no evidence that the practitioner was notified of the medication problem nor, that as of more than a month later, anyone scheduled a visit for the patient with the practitioner to discuss the medications and address the seizures. Given seizures can, at times, be dangerous and given that this

patient's seizures might be avoidable by a change in treatment, this lack of follow-up care for the emergency put the patient's health at risk.

52. **Second**, when medical staff do respond to medical emergencies in NDCS, they may not have the proper equipment. When responding to an emergency in a prison, medical staff should do so equipped with sufficient materials, including sufficient medications, to provide emergency care for most common emergencies and to stabilize the patient until the arrival of EMS responders or transport back to the medical unit. For example, staff should be equipped with: aspirin, which should be administered as soon as possible to a patient suspected of having a heart attack; nitroglycerine, which should also be administered as soon as possible during a heart attack; and glucose, which should be administered as soon as possible to a patient suspected of suffering from low blood sugar. The equipment should be checked on a regular basis to make sure that all necessary supplies are present and in working condition.

53. During my visits, I found numerous problems with the emergency response equipment at NDCS facilities. Emergency response equipment is kept in an emergency response bag ("bag"). None of the bags contained nitroglycerin or aspirin. At LCC, the bag contained a solution for irrigating eyes, but it had passed its expiration date. Even though there was no nitroglycerin in the bag, where it should be for rapid deployment, LCC staff did maintain nitroglycerin in a drawer in the medical unit. However, the medication had passed its expiration date. At NSP, the contents of the bag are not checked on a regular basis. Review of the log of daily checks revealed numerous long stretches of time when no one checked the contents. The bag (as do the bags in all the prisons) has numerous compartments for different supplies. The compartments of the bag at NSP are labelled with the contents of that compartment to help staff rapidly find the supply they are looking for during an emergency. However, upon inspection of

the bag, I found that emergency supplies were placed in compartments irrespective of the label on the compartment, introducing a delay in providing emergency care. The bag was also missing oropharyngeal airways, important for providing effective ventilation to someone who has stopped breathing. The bag at NCCW was also missing airways. Each of these deficiencies increases the chance that medical staff will not be able to provide proper care during a medical emergency.

54. **Third**, when medical staff respond to medical emergencies in NDCS, the person responding may be unqualified to do so. In a safe prison health system, the medical professional who responds to an emergency is generally an LPN, RN, or practitioner. If the responder is an RN or practitioner, he or she can seek assistance from a higher authority or, if within their capabilities, manage the emergency independently, conducting an assessment and implementing a treatment plan. However, if the responder is an LPN, he or she can only provide initial care, after which he or she must seek assistance from a higher authority (which would either entail consulting with an RN or practitioner, or evacuating the patient to the ER). NDCS uses LPNs interchangeably with RNs as medical professionals who may respond to an emergency. As explained in more detail elsewhere in Paragraphs 21-27, LPNs do not have the expertise, nor are permitted under their licenses, to provide such care independently. Despite this, LPNs who respond to emergencies not only provide initial care, but also sometimes manage the emergency independently, without seeking the appropriate assistance from an RN or a practitioner. Thus this practice, found throughout NDCS, and to which all patients are exposed, is patently dangerous, as illustrated by the following examples.

- At TSCI, Patient 13 experienced an emergency due to shortness of breath. An LPN responded and treated the patient using NTP #44 Shortness of Breath (see Paragraphs 25-

26 for more details about these protocols). The LPN found out the patient had shortness of breath on exertion but also at rest. On examination, he had abnormal breath sounds (wheezes) throughout his lungs. The LPN managed the patient independently without consultation from any higher level clinician and the LPN did not arrange for any further monitoring or follow-up care. Given the patient's history of emphysema and the fact that the wheezing was a marked change from the patient's baseline, this was a serious event with potentially life-threatening outcomes if mishandled. In fact, no further monitoring took place, and several weeks later the patient became very ill again requiring evacuation to the ER. The use of an LPN to independently manage this emergency put the patient's life at risk.

- At TSCI, Patient 1, a patient with a history of seizures, experienced an emergency due to a seizure. An LPN responded and treated the patient using NTP #43 Seizures. The LPN managed the patient independently without consultation from any higher level clinician and did not arrange for any further monitoring or follow-up care. While seizures are often self-limited problems in patients with such a history, their presence may be an indication of a new or worsening problem, requiring an evaluation for which an LPN does not have the expertise, training, or licensure. The use of an LPN to manage this emergency independently put this patient at substantial risk of harm.

55. **Fourth**, on-call practitioner assistance is not always available to nurses faced with an emergency. In most prisons, there are times of the day/week when no physician is on-site. It is the standard of care that during those hours a practitioner is immediately available to the nurse by phone (generally referred to as the Medical Officer of the Day or "MOD"). However, I found instances at NDCS in which this was not the case. For example:

- At TSCI, Patient 1 was found unconscious. An RN responded to the emergency at approximately 18:40. The patient then experienced a number of seizures; he had a history of a seizure disorder. At 19:30 the nurse called the MOD (a physician assistant) for consultation. There was no answer; the nurse left a message. The physician assistant did not return the nurse's call until 18 minutes later at 19:48, at which time the PA instructed the nurse to send the patient immediately to the ER. Multiple seizures in a row, as experienced by this patient, are serious, potentially life-threatening, and require immediate attention. The almost-20-minute delay in the response of the MOD put the patient's health at significant risk.

56. **Fifth**, NDCS has a practice with regard to management of patients whose hearts have stopped which markedly reduces the effectiveness of treatment, and thus reduces the likelihood of survival. When a patient's heart stops in a prison, the standard of care provides that first aiders (usually COs) are supposed to begin and continue cardiopulmonary resuscitation ("CPR") until arrival of medical staff. Medical staff continue CPR until arrival of community EMS personnel who are escorted directly to the scene. Depending on their training, community EMS personnel provide either Basic Life Support ("BLS") or Advanced Life Support ("ALS"). ALS personnel generally provide sophisticated interventions at the scene, including intubation (placement of a breathing tube in the lungs) and medications to revive the heart, with a goal of restarting the patient's heart (and discontinuing CPR) prior to moving the patient to the ambulance. They generally "set up shop" and provide these interventions at the scene rather than move the patient to their ambulance because a) time is of the essence, and b) it is difficult to provide good quality CPR while moving a patient to an ambulance. Thus when ALS services are

available, a patient has the best chances for survival if first responders perform CPR at the scene, *without moving the patient*, until the arrival of community EMS personnel.

57. It is my understanding, based on conversations with NDCS staff and publically available information, that ALS services provided by community EMS responders are available at all facilities except TSCI, yet NDCS does not follow this standard of care. Instead, at NDCS facilities, when a patient's heart stops, custody staff or medical staff move the patient – while trying to perform CPR – to the front of the facility, where they are met by EMS personnel. Because it is very difficult to administer effective CPR while moving a patient across a prison campus, and because survival from a cardiac arrest depends highly on performance of effective CPR, NDCS's practice of moving patients to the front of the facility (rather than continuing effective CPR on scene, and escorting EMS personnel to the scene) reduces the patient's likelihood of survival.[21]

58. In conclusion, there are errors in the way medical emergencies are managed in NDCS. These errors result in significant risk of harm to patients. As any individual incarcerated in NDCS is liable to have a medical emergency at any time, the named plaintiffs, as well as all other incarcerated individuals are exposed to this risk.

2. Urgent Care

59. In this report, I define medical urgency as a situation other than an emergency in which a patient believes he or she requires medical care that cannot wait until the next scheduled clinic, and therefore seeks the assistance of a CO in obtaining care at that moment.

[21] Community EMS responders to TSCI provide BLS, not ALS, level care. BLS responders do not have the treatment capabilities of ALS responders, and they will have to move the patient to the ambulance while performing CPR. Therefore, at TSCI, NDCS's practice of moving patients to the front of the prison while performing CPR is not worse than waiting for EMS before moving the patient, and while reducing the amount of time to get the patient to the hospital.

60. For patients to have safe access to urgent care, three successive steps must take place without barrier. First, the patient needs to be able to gain the attention of a CO. Second, the CO must pass the request to a medical staff member. Third, once aware of the medical need, the medical staff must respond as appropriate. Based on my observations and review of documents, access to urgent care is significantly impaired at NDCS due to problems with all three of these steps. It is important to note that NDCS has a system for access to care for non-urgent episodic needs (described in more detail in Section VI(D)(3)). However, access to care through this latter system takes from one to several days, which would not be a safe interval for many urgent medical needs, hence the need for a separate system for access to care for urgent problems.

61. **First**, as an initial matter, official NDCS policy actually discourages residents from seeking urgent care by contacting a CO. The Inmate Handbook that residents receive upon admission to NDCS instructs residents to contact COs for "emergencies." This instruction asks residents *de facto* to triage their complaint between urgencies and emergencies, and does not provide them a safe pathway for obtaining access to urgent (but non-emergency) care. Because non-clinical personnel (including patients) do not have the knowledge and experience to always know the difference between an urgent and emergent need, NDCS policy of discouraging residents from seeking care puts residents at risk of serious harm.

62. **Second**, even if a resident determines to request urgent care from a CO, it can be difficult for patients to gain the attention of a CO at night. Residents reported this at TSCI, NSP, and LCC (residents did not report this at NCCW, and I had insufficient data to determine if it happens at DEC). At LCC, patients are expected to flick their room lights on and off to attract the COs' attention. When this doesn't work, they try banging on doors. Both methods are "hit and miss," and so they otherwise have to wait for COs to come around on their rounds. At TSCI

there are alert buttons in rooms, but a number of residents reported that these are also not always responded to quickly, if at all, in which case they must wait for the next CO rounds. For example, one TSCI resident told me of an incident about one month earlier when another resident was experiencing chest pain. He or his roommate pressed the alert button, but it still took 30 minutes before COs responded. In another example, a different TSCI resident recounted an episode about a year earlier when someone pressed the alert button, but it took COs three hours to respond. A similar situation was documented in another patient's medical record:

- According to Patient 47's medical record at TSCI, nurses were summoned by COs to assess this patient. They found that he was short of breath and had chest pain, and upon examination could hear a worrisome type of breathing pattern indicating a breathing obstruction (stridor). His blood pressure was dangerously high (207/119, normal <140/80) and his pulse was also dangerously high (148, normal < 100). The nurse documented that the patient reported pressing his alert button, but receiving "no assistance."

63. **Third**, even after gaining the attention of a CO about a medical need, the CO may not communicate the need to medical staff. According to my interviews with NDCS staff, once a CO is aware that a patient believes he or she needs to see a nurse, the practice throughout NDCS for handling that need is as follows. The CO first makes a decision as to whether, in the CO's belief, the patient's medical need is urgent. Based on the CO's conclusion, he or she will take one of four actions:

1) The CO instructs the patient to fill out a written request for care (Inmate Interview Request or "IIR"). This form is mailed to the medical unit after which the patient is (usually) scheduled for a visit in one or more days.

2) The CO fills out a "Non-Emergency" form. This form is hand carried to the medical unit shortly after it is written and is immediately triaged by a nurse. The nurse will either contact the CO to send the patient to the medical unit immediately or process the "Non-Emergency" form as an IIR after which the patient is (usually) scheduled for a visit in one or more days.

3) The CO escorts the patient to the medical unit.

4) The CO calls a nurse who will either arrange to see the patient at that time, or instruct the CO to instruct the patient to fill out an IIR.

64. It is obvious, then, that a patient's access to urgent care, relies first and foremost on the CO's evaluation of the urgency of the patient's medical need. This decision is a *de facto* medical triage. These decisions can be quite complex, even for a seasoned clinician. COs do not have the training,[22] expertise, or licensure to make medical decisions. But at NDCS, COs make these determinations. Because COs are not qualified to make such decisions, they should notify an RN (or practitioner) immediately of any urgent request for care. But instead, NDCS's practice of relying upon COs to make these complicated medical assessments, and its lack of policy guidelines directing COs to enable residents to access urgent care, puts patients at risk. For example, a patient with a headache and a little pain in his sinuses probably just has a mild head

[22] One NDCS employee informed me that COs receive 15-30 minutes of training annually from a registered nurse or LPN regarding evaluating urgent requests for health care. However, it is impossible to learn, in a fraction of an hour, a skill that requires years to learn.

cold. However, another patient with the same headache and a little pain and stiffness in his neck, may have meningitis. One CO with whom I spoke stated, "if they're just vomiting, or something like that, we tell them to fill out an IIR." The following is a striking example:

- Patient 1 at TSCI has a seizure disorder and had such severe seizures at one point earlier this year, that he required treatment in the ER. The day following his treatment in the ER, he was found by a CO unconscious in the living unit. This is a serious condition that requires immediate medical evaluation. Instead, the lieutenant on duty decided otherwise, and did not emergently summon medical staff. This failure to seek emergency treatment put the patient at risk of serious harm.

65. **Third**, if COs do decide that medical evaluation is necessary, the evaluation by medical personnel may be dangerous. In a safe prison health system, the medical professional triaging the patient complaint would be a registered nurse ("RN") or practitioner who would triage in a timely manner. After triage, those patients deemed to require immediate care would be evaluated by an RN or practitioner.

66. At NDCS, by policy and practice, the medical professional who triages complaints (as noted above, these complaints come to their attention either via a phone call or "Non-Emergency" form from COs) is, often, an LPN operating independently. As noted earlier, triaging decisions can be quite complex, even for a seasoned clinician. They require the nurse to know what additional information to collect and to integrate that information into a tentative nursing diagnosis and urgency level (i.e. conducting an "assessment" and formulating a "nursing care plan"). The outcome of an erroneous triage decision (i.e. "There's nothing urgent – this can wait until we schedule the patient in clinic.") can be seriously harmful if not lethal.

67. Sometimes the result of the triage is to have the patient seen immediately. Once again, it is often an LPN who often sees the patient, which, like triage, requires the nurse to make an assessment and nursing care plan.

68. As explained in more detail elsewhere in Paragraphs 21-27, LPNs do not have the training or expertise, nor are permitted under their licenses, to make assessments and nursing care plans independently, skills which are required to properly triage urgent requests and evaluate patients triaged to immediate care. Thus all patients currently in NDCS are subject to a risk of harm if they try to access care through the urgent care pathway and the request is triaged by an LPN and/or the patient is then evaluated by an LPN.

69. The following are examples of dangerous care that resulted from care delivery by an LPN triggered via the urgent care pathway, after triage.

- Patient 21 at NSP was experiencing chest pain for which he was seen urgently by an LPN. His heart was racing (heart rate 112, normal <100). The LPN managed the patient's care, independently, using NTP #9 Chest Pain, prescribing bed rest, drinking "plenty of fluids" and to return to the clinic as needed. The LPN ignored the patient's racing heart, which in this scenario was of particular importance and a potential cause of the chest pain. This patient is highly complex, with a history of asthma, emphysema, seizures, hypertension, gastroesophageal acid reflux disease, and a narrowed valve in his heart (AV Stenosis). As such, his chest pain could have been the result of a serious evolving condition, such as a heart attack, for which the lack of further evaluation and treatment at the hands of the LPN, could have been fatal. Further, the LPN's instruction to "drink plenty of fluids" had the potential of making things worse.

- Patient 13 at TSCI was seen urgently by an LPN for shortness of breath at 22:15. At that point the level of oxygen in his blood was very low (83%, normal >94%) and he had abnormal breath sounds (wheezing) throughout his lungs. The nurse administered a breathing treatment which resulted in only a small improvement in oxygen level (86%). At 22:35 the LPN finally contacted the MOD who instructed the LPN to immediately send the patient by ambulance to the ER. While the LPN ultimately sought consultation and the patient then received proper care, for 20 minutes the LPN attempted to manage the patient independently. The patient's initial presentation – shortness of breath, wheezing, and a very low oxygen level – constituted an obvious emergency. The 20 minute delay was dangerous and could have had a much worse outcome.

- Patient 14 at NSP was seen urgently for chest pain. His care was managed by an LPN. Not only did the LPN operate independently, the LPN did not even bother to use any NTP, did not perform any examination (other than measuring vital signs), and sent the patient back to his living unit with antacids. Given the patient's risk factors (age, pre-diabetes, possible hypertension, possible high cholesterol) for heart disease, the care he received was grossly beneath the standard of care and put him at a substantial risk of harm.

70. In summary, based on patient interviews, staff interviews, and chart reviews, the three steps for accessing care through the urgent care pathway are dysfunctional in NDCS. Given that any NDCS resident could develop an urgent medical need at any time requiring him or her to obtain immediate medical attention, my review indicates that the system in place for patients to access urgent care places all residents in NDCS at risk of serious harm.

3. Non-Urgent Episodic Care (NUEC)

71. In this report, I define NUEC as care for a need which is unexpected (episodic), for which the patient believes that care can wait a day or more until a visit is scheduled, and for which care is accessed via the non-urgent episodic care pathway by submitting a written request. Of the various types of care delivered in a prison setting (including NDCS), NUEC is by far the most frequent. Provision of NUEC is essential. While a medical practitioner may have more time to diagnose and treat many non-urgent medical conditions, the conditions themselves may still be serious. Thus, failure to provide access to NUEC still places patients at significant risk of serious harm.

72. For patients to have safe access to NUEC in a prison setting, a number of steps must take place, including: patients are able to easily obtain request forms; patients who cannot communicate in written English have a method for submitting a request; written requests are handled confidentially, i.e. only by medical staff; written requests are reviewed in a timely manner by an appropriately qualified medical professional; all requests describing symptoms or requests for care result in a face-to-face visit (in NDCS this is called “sick call”); the visit is scheduled in a clinically appropriate length of time; the visit is consummated; the medical professional consummating the visit is clinically and legally qualified to do so. Based on my observations, interviews, and review of documents, access to NUEC is significantly impaired at NDCS due to problems with most of these steps.

73. **First**, written requests for care (IIR) are, by design and in practice, not handled confidentially. IIRs need to be handled confidentially for two reasons. First, patients have a right to privacy regarding their protected health information. In a prison setting, that right may be ignored when there is a superseding legitimate penological interest. However, it is exceeding rare

for prison administrators to have such a need-to-know where NUEC is concerned. Further, I could find no such legitimate need in any of the examples I found. Second, patient safety can suffer when protected health information is not handled confidentially. If patients believe that COs may learn about their health conditions, many patients will withhold key information. If medical staff are ignorant of this information, they risk making uninformed – and therefore erroneous – clinical decisions. At all NDCS facilities I visited (with the exception of NCCW and the non-isolation housing units of TCSI), patients are expected to place their IIRs in a "General Mail" box in the living units. From there, COs read and sort them and forward them to the appropriate recipient (in the case of health care: dental, mental health, or medical staff). Thus most IIRs in NDCS are, by design, not handled confidentially, violating patients' rights and risking poor medical outcomes.

74. **Second**, written requests for care (IIRs) in NDCS[23] are, by policy and in practice, sometimes reviewed (triaged) by unqualified medical professional. The review of a written request can require a high level of knowledge and experience to determine a safe time interval in which to schedule the patient for a visit. This is because one must make an assessment of the likely cause of the patient's symptoms based on minimal information from individuals, many of whom are health-illiterate.[24] In NDCS, this task is sometimes assigned to LPNs. As explained in more detail elsewhere in Paragraphs 21-27, LPNs do not have the training or expertise, nor are permitted under their licenses, to make assessments.

[23] DEC is an exception. I was informed that all IIRs are reviewed by a qualified professional (physician assistant).

[24] "The Patient Protection and Affordable Care Act of 2010, Title V, defines health literacy as the degree to which an individual has the capacity to obtain, communicate, process, and understand basic health information and services to make appropriate health decisions." *See* https://www.cdc.gov/healthliteracy/learn/index.html.

75. The current practice of assigning LPNs to review IIRs is supported by policy. AR115.04, Health Education and Access to Health Services, Section II.B.1 says that "[IIRs] are triaged daily by health professionals per a priority system…." Dr. Deol testified that LPNs are considered health care professionals in NDCS. Deol Dep. 160:7-9.

76. Thus the system in place for review of IIRs, by relying on the expertise of LPNs to make a decision about whether a patient needs to be seen immediately for a given problem or can safely wait a few days, exposes all individuals currently in NDCS to a risk of harm if they try to access care through the NUEC pathway and the request is triaged by an LPN.

77. **Third**, IIRs describing symptoms or containing requests for care, do not always result in a face-to-face visit. In a safe prison health system, such requests – with few exceptions – should result in a face-to-face visit with a health care professional. Providing only a written response to the IIR is not a replacement for a visit. Entering into a written conversation with the patient, asking further questions or recommending specific treatments – "care by correspondence" – in a population with low health literacy and in a setting where the patient does not enjoy the ability of those of us in the free-world to bypass our physician and go to an ER, generally serves only to delay or avoid having to provide care. Ignoring a request for care, or providing only a written response, is potentially dangerous, as illustrated by the following examples.

- At LCC, Patient 10 submitted an IIR complaining of a sore throat, cough productive of green sputum, shortness of breath, and chest pressure. The following day he received a written response informing him that cough syrup had been ordered and that he should drink fluids. When the patient submitted another IIR three weeks later, reporting that he now had cold chills and sweats, an even more obvious symptom of a possible serious

infection, he again only received a written response, informing him the cough syrup had been re-ordered and to drink plenty of fluid. Such advice, in the absence of an examination, was patently dangerous as the patient may have been suffering from a serious, even life-threatening, conditions, such as pneumonia.

- Named Plaintiff Sabata, at NCCW, submitted an IIR for concern she may have cancer in her kidney. This IIR was ignored: it was not reviewed, it was not responded to, and it did not result in an evaluation.

78. Thus, the system in place for responding to IIRs creates a barrier to care for potentially serious medical needs by failing to actually have patients examined, occasionally substituting no care with "care by correspondence." Any patient in NDCS who submits an IIR is at risk for such inadequate care.

79. **Fourth**, when a request for care does result in a visit, there are unacceptably long delays until that visit takes place. In a safe prison health system, patients are seen soon after submitting a request for NUEC. The National Commission on Correctional Health Care has an accreditation standard requiring the visit to occur within two days of the request. In my opinion, a longer time period may, at times, be acceptable provided that: a) patients have unimpeded access to urgent care, i.e. should the patient believe they can no longer wait for a scheduled appointment, they can be seen, reliably quickly, by triggering the urgent care pathway described earlier; and b) if the delay is much more than two days, that a qualified health care professional has determined that the delay is clinically appropriate. Based on interviews with patients and review of documents, there are long delays between when NDCS patients request NUEC and when they are seen by a medical professional (usually a nurse). These delays are not surprising given the lack of guidance provided to staff by NDCS, a deficiency that NDCS is aware of, but

allows to continue: At his deposition, Dr. Deol acknowledged that NDCS does not have a policy specifying the timeframe within which COs must forward medical IIRs to medical staff, a policy specifying the timeframe for medical staff to triage those IIRs once received, nor a policy specifying the timeframe within which a patient must be seen after triage of the IIR. Deol Dep. 96:25-97:5, 95:20-96:24, 97:6-97:21, respectively. Given that: a) the pathway for accessing urgent care in NDCS is unreliable, and b) IIRs are sometimes reviewed for urgency by unqualified professionals (LPNs), these long delays are also potentially dangerous.

80. During interviews, multiple patients at each of the five facilities I visited reported that it takes a up to four weeks to be seen after submitting an IIR. At one facility, I examined the schedule for upcoming NUEC appointments. At the moment of my examination, the next available slot into which patients were being scheduled was three weeks in the future.

81. The following are examples of delayed responses to NUEC requests were drawn from medical record reviews.

- Named Plaintiff Sweetser submitted an IIR for an eight-day history of feeling his "head rushing" and blurry vision. He was scheduled to see a practitioner 10 days later. Absent more information, these symptoms evoke conditions, some of which are generally emergencies (e.g. malignant hypertension, acute angle glaucoma, meningitis), for which a 10-day delay in treatment would result in serious harm if not death.

- Above I cited the example of Patient 14 at NSP, who submitted an IIR stating that he had diabetes and had cuts in between his toes on both feet for which he needed to be seen as soon as possible, and for which he received only a written response, "You are on no diabetic meds anymore." It took NDCS staff over a month to provide even this minimal and potentially dangerous response, rendered more dangerous by the delay. Untreated

cuts in patients with diabetes can easily become infected, sometimes resulting in amputations of toes, the foot, or the leg, or even resulting in death.

- Patient 33 is in the isolation unit at NSP. He suffers from a number of serious medical problems including hypertension, diabetes, kidney insufficiency, and anemia. On August 13, 2018, he submitted an IIR stating "Every time I stool its like the blood looks black and smell unreal. My liver and kidney hurt. My head has sores on it." The IIR was not reviewed (triaged) until August 20. This is an unacceptably long interval, and, in light of the symptoms expressed, dangerous. The IIR was triaged as "Scheduled to [NUEC clinic]." On August 31, a physician saw him for an unrelated IIR. There is no indication in the physician's note that he was aware of nor addressed the much more serious IIR of August 13. I found no other visits in the next few days related to the August 13 IIR. The patient's symptoms suggest that he may have had internal hemorrhaging, an acute abdominal infection, or other similarly serious and potentially fatal conditions. Thus, a worrisome constellation of symptoms, made more worrisome by the patient's history, seems to have gone ignored by medical staff.

82. Thus based on interviews and chart reviews, requests for NUEC may be subject to delays in provision of care, which exposes all individuals in NDCS to a risk of harm.

83. **Fifth**, even when NDCS medical staff receive a patient request for NUEC and do schedule the patient to be seen, the visit is not always consummated. In a safe prison health system, COs bring or send patients to their scheduled appointments. If a patient no longer feels the need to be seen, he or she still appears in person at the medical unit and so informs a health care professional. An in-person cancellation is necessary for the patients' safety because it cannot be assumed that a patient's failure to show for an appointment in a correctional setting is

volitional. It is possible that: the patient was never informed of the appointment; COs coerced the patient to cancel; other residents coerced the patient to cancel; or the patient has become so ill that he or she is unable to get to the clinic. A nurse scheduler at one facility informed me that if a patient "no shows" to a NUEC appointment, medical staff do not attempt any further follow-up unless the patient's building pass did not print out or the patient is in an isolation cell. Whatever the reason, some scheduled patient appointments for NUEC at NDCS do not take place, as illustrated by the following examples.

- At NCCW, Named Plaintiff Norris had a seizure during which she lost control of her bowels. An IIR was submitted ("Had a seizure, had a bowel movement. Resting. Would like to see medical."). The IIR appears to have been written by the CO. The patient did not show for an appointment scheduled the same day. In a note to the medical staff two days later, a CO explained that the patient had missed her appointment because of a failure by custody staff to escort her. The appointment was rescheduled for the fourth day after the seizure. At that time she was seen by an RN who wrote, "I explained she will need to see the [practitioner] for any medication changes." It is not clear from this note if the nurse put the responsibility back on the patient to request another visit (which would be inappropriate) or the nurse was referring the patient to a practitioner. In either case, as far as I can tell, the patient was not seen by a practitioner for this problem in an timely manner, if at all. This delay in meaningful treatment was dangerous for the patient because it delayed addressing the underlying cause of the seizure to prevent further seizures, any of which puts the patient at risk for serious complications, such as pneumonia and fractured bones.

- At LCC, Patient 15 submitted an IIR for vomiting blood and having blood in his stool. Two days later, a written response said, "Schedule to SC [Sick Call, the clinic for NUEC]." Loss of blood from vomiting and defecation indicate internal bleeding, which should be considered a life-threatening emergency until proven otherwise. Instead of making immediate arrangements to see the patient upon reading his IIR, the patient was never seen. Two months later the same patient submitted an IIR for a possible urinary infection. He was marked as "no show" on the day of his submission and the next two days, after which staff dropped the issue. Staff did not conduct a face-to-face encounter to assure that the patient was aware of the scheduled visit and had voluntarily chosen to refuse it. Failure to address the latter problem placed the patient at risk of harm from serious infection; failure to address the former problem placed the patient at risk of death.

84. Thus when patients at NDCS are scheduled to be seen for non-urgent episodic conditions, the system in place does not reliably ensure that the patient is actually seen and evaluated. This can have dire consequences, depending on the cause of his or her symptoms.

85. **Sixth**, the medical professional consummating the visit to address a non-urgent episodic need is often not clinically or legally qualified to do so. In a safe prison health system, clinical visits are conducted by a medical professional with sufficient training and experience to do so. Typically this should be a practitioner, though in some prisons, RNs conduct an initial evaluation, safely providing definitive management for a limited number of common and simple problems, and referring the patient to a practitioner for the rest. Instead of RNs, NDCS often uses LPNs to independently conduct initial evaluations and to provide definitive management for a broad range of non-urgent episodic problems. As explained in more detail elsewhere in Paragraphs 21-27, LPNs do not have the expertise, nor are they permitted under their licenses, to

provide such care independently. Thus this practice, found throughout NDCS, and to which all patients are exposed, is patently dangerous, as illustrated by the examples below.

- Named Plaintiff Sabata complained of chest pain. She was seen by an LPN who treated the patient using NTP #9 Chest Pain. The patient described the pain as 6/10 in intensity, lasting a minute, and disappearing on its own. The patient's heart beat was fast (106, normal <100). The LPN managed the visit independently and discharged the patient to her living unit, failing to address the rapid heartbeat or establishing a cause of the chest pain. The LPN failed to evaluate the patient for an abnormality of the covering of the lungs (pleuritis), which could cause such a pain. The LPN did refer the patient's chart to a practitioner for review, however, there is no evidence that referral ever materialized. The LPN's independent evaluation exposed the patient to risk of harm from an undiagnosed and untreated condition.

- Patient 11 at DEC developed nausea and weakness. An LPN, operating independently, treated him using NTP #49 Vomiting and Nausea. His blood pressure was 106/75 (while this is technically within the "normal" range, it was an abnormally low blood pressure for this patient who suffered from hypertension). Given the patient's history of diabetes with high blood sugars in the past, his history of nausea and weakness, and his relatively low blood pressure, it was important to evaluate the patient for acutely high blood sugar, infection, and dehydration (blood sugar test, orthostatic blood pressures, etc.), which are serious conditions and require immediate treatment. Instead, the LPN provided no immediate definitive care, simply referring the patient to the next regularly scheduled clinic.

- Patient 26 at TSCI was suffering from a rash which he believed might be caused by one of his medications (Levemir®). Thus when offered the medication by an LPN, he refused it to see if the rash would disappear. Despite this, the LPN, operating independently, advised him to take the Levemir. This advice was dangerous: if patient might be allergic to a medication, the proper action is to hold administration of the medication and contact a practitioner for further orders.

86. In summary, based on patient interviews, staff interviews, and chart review, most of the steps for providing access to NUEC are dysfunctional in NDCS. Given that any NDCS resident could develop an non-urgent medical need at any time my review indicates that the system in place for patients to access timely safe non-urgent episodic care places all residents in NDCS at risk of serious harm.

4. Chronic Care

87. Regular, non-episodic care is frequently referred to as "chronic care." The goals of this care are to manage a condition and prevent future complications from the condition. The "condition" is often a chronic, long-term disease, such as hypertension or asthma. But for the purposes of this discussion, it might also be other matters, such as a newly discovered problem which needs to be worked up, an episodic problem which now requires follow-up, or health maintenance such as periodic screening for breast or cervical cancer. This section addresses care which is distinguished from outpatient care described in other sections in that the condition requiring care is not episodic. Rather, medical staff are already aware of the condition. The "driver" of care shifts, then, from the patient (where the system is designed to be reactive to a patient request), to the medical staff (where the system is designed to be proactive, anticipating

needs, and scheduling future appointments in the absence of a request, based on the status of the condition).

88. Based on interviews and review of documents, I find many gaps in the provision of chronic and other scheduled care in NDCS. The gaps I identified—including (a) failure to see patients at appropriate intervals; (b) failure to follow through after patients are seen by outside specialists; and (c) discoordinated and poor care—are indicative of a broken chronic care system. For example, chronic care patients should generally be seen on a regular, periodic basis. The purpose of such regular, pre-planned visits is to assess the current status of the disease by history, examination, and, sometimes testing, providing patient education to help the patient self-manage and cope with his disease, and implement preventive health measures to reduce the chances of progression of, or complications from, the disease. NDCS has difficulty, at times, accomplishing this most basic task of seeing patients. Because many NDCS residents have conditions requiring chronic care, and others could develop and issue requiring chronic care at any time, the chronic care system impacts all patients at NDCS. I provide a series of examples of cases, using each to present one or more of the three systematic gaps in care.

- Patient 4 at LCC has a chronic disease, asthma, for which he is followed in chronic care clinic ("CCC"). For a chronic disease, such as asthma, he should be followed on a regular basis. The last time this patient had a CCC visit for his asthma was October 2017. There are no evidence-based generally accepted intervals for scheduling CCC visits for patients with asthma; the interval should be tailored to the individual patient based on the severity of his or her disease. The U.S. National Institutes of Health recommends 1- to 6-month intervals for the most stable patients, and NDCS's own guidelines set the maximum at 12 months (Medical Protocol 16 Chronic Care Clinics). Despite this, as of my tour in

November 2018, more than a year later, Patient 4 had not had another CCC visit. Further, his disease was not well-controlled enough to justify such a long stretch between visits. In July of 2018 he suffered an asthma attack so severe as to require a cortisone injection. Yet even after this indication that his disease was *not* well-controlled, no follow-up care in CCC was scheduled for him. Asthma attacks can be severe enough to require hospitalization and can lead to death. Thus, this patient's chronic care need was poorly handled and put his health at risk. Gaps in care: (a) Failure to see patients at appropriate intervals; (c) Discoordinated and poor care.

- Patient 27 at TSCI suffers from a chronic inflammatory disease of the bowel (Crohn's Disease). The disease is severe enough that NDCS sought the assistance of an outside specialist to assist with chronic disease management. On December 8, 2017, the patient had a chronic care visit with this specialist. Based on the results of a biopsy of the patient's intestines, the specialist determined that the patient's current medication had failed, and recommended switching the patient to a different medication. On December 26, 2017, an NDCS practitioner initialed the specialist's report, indicating acknowledgment of the need to change the medications. However, no change was made. When the patient returned to the specialist on March 3, 2018, the specialist noted that the new medication had not been started as recommended. On March 29, 2018, almost 4 months after it was recommended, the patient finally received his first dose of the new medication. Crohn's disease is a serious condition which, in severe cases can cause pain, bleeding, and obstruction of the bowel, among other effects. Failure to provide timely treatment for his disease placed him at increased risk of these complications. Gaps in

care: (b) Failure to follow through after patients are seen by outside specialists; (c) Discoordinated and poor care

- Patient 38 at NCCW underwent a routine scheduled screening mammogram on 10/25/17. It showed new shadows (calcifications) in the right breast. This is an abnormal and concerning result. The radiologist therefore recommended additional x-rays (I found this report misfiled in the patient's medical record). No action was taken on this report and recommendation until May 1, 2018, more than 5 months later when, for some reason I could not discern, the 2017 report came to light. Ultimately the patient was diagnosed with breast cancer (intermediate grade ductal carcinoma) and is currently receiving cancer treatment. Breast cancer can be a fatal disease depending on the nature of the cancer and how swiftly it is treated. I do not know the degree to which the marked delay in addressing this patient's initial mammogram affected her prognosis. However, it certainly increased her risk of a poor prognosis. Gap in care: (b) Failure to follow through after patients are seen by outside specialists.

- Named Plaintiff Sweetser suffers from chronic ailments, including hepatitis C. In mid-2016 he began experiencing problems with his joints. For example, in June, he developed difficulty walking and was found to have fluid in both knees. He then developed pain and limited movement in his left shoulder. Through 2016 and early 2017 he continued to have these and other symptoms. In March of 2017, he asked the physician for treatment for his hepatitis C; in some cases, Hepatitis C can cause the symptoms the patient was experiencing. On March 3, the physician wrote to the patient that he was going to refer the patient's case to NDCS's Hepatitis C Committee. I could find no record of such referral taking place. On March 22 another practitioner met with the patient for continued

joint pain. The practitioner wrote that she was awaiting the results of a test ("Fibrosure") to determine whether the joint pain was due to Hepatitis C. In fact, the test had been completed a week earlier and would have been available to her. More importantly, the test was irrelevant, and so depending on its results to manage the patient's chronic problem was erroneous. The Fibrosure test only indicates the amount of Hepatitis C damage to the patient's liver; it does not shed any light on the question at hand: was the joint pain the result of Hepatitis C? Finally, at the end of the visit, the practitioner ordered prednisone to manage the patient's chronic pain, but the order was never implemented. As of July, 2017, the patient had still not received treatment for his Hepatitis C or other resolution of his joint problems. This small slice from the chronic management of the patient's joint problems is just one example that reflects discoordinated and poor care. Gap in care: (c) Discoordinated and poor care.

- Named Plaintiff Sabata underwent a routine scheduled screening Pap smear. The abnormal result, reported back a week later, showed cells suspicious for a high-grade lesion (i.e. risk of cancer). This result was not reviewed until almost 2 months later, which is an unreasonably long delay for an abnormal result. The patient did not actually see a specialist for this and have a colposcopy performed until a quarter of a year later, which is also an unreasonably long delay for an abnormal result. When she finally underwent the colposcopy, a pre-cancerous lesion was found and treated. As with many cancers, the sooner the pre-cancer (or cancer) is treated, the greater the chance that the cancer will be avoided or cured. Gap in care: (b) Failure to follow-through after patients are seen by outside specialists.

89. In summary, based on interviews and review of documents, there are significant problems with the delivery of chronic and other scheduled care in NDCS. Just under one quarter of all individuals incarcerated in NDCS are labelled as having chronic disease. Almost all females in NDCS are in need of periodic scheduled screening services for breast and pelvic health. And any incarcerated individual could develop a new problem requiring effective work-up, follow-up and comprehensive management over time. Thus the care delivery problems described here place all individuals incarcerated in NDCS at risk of serious harm in at least one way, and some in multiple ways.

5. Access to Care in Isolation Cells

90. Isolation units (also known by a variety of other names, including solitary confinement, restrictive housing, control units, etc.) are units where individuals' activities and access to many prison services and programs are restricted. In a safe prison, placement in such units should not decrease access to, nor the quality of, medical care. Patients should have unimpeded access to care via the emergency, urgent, and non-urgent episodic pathways. They should continue to receive monitoring, medications, and other treatments as they would if they were in any other living unit of the prison. Implicit in this statement is that when clinically indicated, a patient in isolation must be moved to a proper examination room for evaluation as would any other patient. It is unacceptable under the standard of care to attempt to conduct the evaluation across a locked cell door.

91. In addition to unimpeded access to care, because of the unique nature of these units, these units must provide at least two special services. First, they must provide pre-isolation-placement evaluations. Isolation units are typically the destination of individuals involved in altercations or uses of force by custody staff. These individuals require careful health

evaluations ("post-use of force evaluations") prior to placement in isolation to assure that a) they did not suffer injuries which require medical attention, and b) that the behavior which led to the altercation or use of force was just volitional misbehavior and not the result of a change in mental status, something which would require medical intervention. Second, because placement in such units can, by itself, increase risk of harm to mental and physical health, it is the standard of care in prisons that both medical and mental health staff must conduct "welfare checks" on all individuals placed here. The primary risk is from deterioration in mental health, however the goal of a welfare check conducted by medical staff includes looking for deteriorations in physical health because a) mental illness can result in physical illness, for example, dehydration as a result of not drinking enough fluids, and b) impaired access to health care may result in serious progression of physical illness. The welfare checks conducted by medical staff are therefore distinct from, much simpler than, and conducted much more frequently than the checks that are supposed to be conducted by mental health staff. A medical welfare check should generally be conducted daily to ensure that the health of residents in isolation cells is not deteriorating or to detect early evidence of deterioration so that it can be addressed and reversed before it results in severe harm or death. It is quite easy to conduct a medical welfare check. A medical staff member asks the resident if he or she is okay and if he or she has any health needs, all the while making sure that resident's appearance and oral responses do not raise any concerns. If the staff member has any concerns, arrangements are made for the patient to receive a more thorough evaluation. Typically a medical welfare check can be completed in a few moments.

92. There are serious deficiencies in access to safe care, post-use-of-force/pre-isolation-placement evaluations, and welfare checks in the isolation units of NDCS,[25] which places patients in isolation at a substantial risk of serious harm.

93. The following are examples of problems in which impeded access to care due to Isolation placed the patient at significant risk of harm.

- Patient 33 was in the isolation unit at NSP at the time of my tour. He was seen by a nurse during rounds in the isolation unit on September 27, 2018. The nurse entered the following note in the patient's medical record: "Patient seen on seg rounds. Complaining allergy shot not working. Rash sores on legs. Advised to order Benadryl from canteen." This is a wholly incomplete and inadequate evaluation of a potentially serious complaint that fell well below the standard of care. A "rash" and "sores" on a patient's legs can be indicative of a broad range of conditions, including serious conditions requiring urgent treatment. This patient required a medical professional to obtain an adequate history and conduct an examination, including, for example, measurement of his temperature and other vital signs. In the absence of a competent history taking and examination, it would be difficult to arrive at a diagnosis (which was required in order to prescribe the treatment).

- I visited Patient 36 in the isolation unit at NSP on November 8. He informed me that he had submitted an IIR for vomiting about a month earlier. I was unable to find this IIR in his medical record. However, I found an IIR from October 29 stating, "I wanna know if I'm scheduled for sick call." Rather than triaging the patient to a visit, the reviewer

[25] DEC does not have an isolation unit. Individuals are sent to LCC.

entered into a dialogue, "I do not see that you are scheduled for [NUEC clinic]. What do you need to be seen for?" On November 1 he was finally "seen" by a physician who wrote, "Seen through hatch @ [isolation unit]." The "visit" was devoid of any examination, including even obtaining of basic vital signs, which is markedly below the standard of care and potentially dangerous.

Post-use-of-force/pre-isolation-placement evaluations are deficient at NDCS, on their face, due to existing policy. AR 116.02 Use of Force, Section VIII.G.2, requires "medical staff" to conduct an evaluation following a use of force. AR 115.05 Health Screenings, Section VI requires "health services staff" to conduct an evaluation prior to placement in isolation. I infer from my interview with staff at all five facilities as well as the deposition by Dr. Deol, that "medical staff" and "health services staff" include LPNs. As explained in more detail elsewhere in Paragraphs 21-27, LPNs do not have the expertise, nor are permitted under their licenses to exercise the clinical assessments and create the nurse care plans required for these two tasks. The inadequacy of the two types of evaluations are illustrated in the following examples.

- Named Plaintiff Sabata was the subject of a use-of-force. Her post use-of-force evaluation suffered from two deficiencies. First, by policy and standard of care, she should have had the evaluation immediately. Instead, it was not conducted until the following day, more than 14 hours after the incident. Second, it was conducted by an LPN, operating independently.

- Patient 44 at LCC was involved in a fight. He has a history of hypertension, diabetes, and sleep apnea. He was evaluated after the fight by an LPN. The nurse documented that he had multiple small lacerations and abrasions and documented that his neurological checks

were normal ("Neuro checks wnl"). The LPN managed the patient's care, independently, using NTP #32 Lacerations. The fact that the nurse chose to conduct neurological checks of some kind is a strong indication that the patient was subject to head trauma, in which case he required further evaluation to evaluate for possible concussion or other brain injury which would include, at a minimum, questioning about loss of consciousness, and which, if suspected, would require further care to keep the patient safe. The nurse did not conduct such questioning. The nurse's documentation of "Neuro checks wnl" is meaningless and therefore useless. The patient was thus subject to poor and potentially dangerous care.

94. Based on interviews with multiple residents, I conclude that **welfare checks** in NDCS isolation units fail to assure the safe health of individuals confined to isolation cells. Some residents informed me that at times nurses do not even attempt to do the checks. For example, a resident of the isolation unit at NSP informed me that there had not been any welfare check in the past week since he had been placed there. Others informed me that when nurses do conduct checks, is it not uncommon for them to simply walk through the unit yelling "Medical!" with the expectation that residents will respond if they have a need.

95. In summary, based on interviews and review of documents, three health-related elements of care related to placement of individuals in isolation units, access to care, evaluation prior to placement, and welfare checks, are unsafe at NDCS. All individuals incarcerated in NDCS are at risk for placement in isolation at any point. Thus all individuals are at risk for substantial harm to their health as a result of at least some of these deficient processes.[26]

[26] Due to low census, I was unable to examine the performance of welfare checks at NCCW.

6. Access to Interpreter Services

96. In a safe prison health care system, when incarcerated individuals who cannot communicate in English require health care, communication must take place in a language the individual understands. Further, that communication must be performed accurately and confidentially. The need for accurate interpretation is obvious. Accurate interpretation would exclude, for example, interpretation/translation software. The need for confidential communication is explained above in Paragraph 73. Confidential interpretation would exclude the use of COs or other inmates (except in emergencies).

97. Based on my interviews, NDCS medical staff do not consistently provide accurate and confidential interpretation for residents who cannot communicate in English. For example, several Hispanic patients at DEC informed me that nurses sometimes use pantomime to communicate with non-Anglophones. At other facilities, nurses use COs in non-emergencies.

98. The effect of NDCS's practice of inaccurate and non-confidential interpretation would affect any patient who were unable to communicate in English and, for the reasons cited here and elsewhere in the report, could place the patient at risk of harm.

E. Medication Administration

99. Medications are foundational to the treatment of diseases. In most prisons, some medications are self-administered and the rest are nurse-administered[27] ("pill line"). The latter delivery system is more complicated and therefore prone to more errors. Based on my observations of the NDCS system, I focus this discussion on those instances where a patient does

[27] It might be more correct to call this staff-administered medication, because in some systems medications may be administered by a medical technician, EMT, nursing assistant, other allowable health care professional, or in some systems – as is the case in NDCS – by COs.

not receive one or more doses of a nurse-administered medication ("missed medications"). They are usually missed because of a patient "refusal," though the reason is not always certain.

100. In a safe prison health care system, nurse-administered medications are given at every dosing time ordered.[28] If the patient does not show up at the pill line, the nurse, working collaboratively with custody staff, either has the patient brought to the pill line or the clinic, or, if necessary, goes to the patient him or herself to either assure that the patient receives the medication or to address the patient's refusal to take it. The nurse must make in-person contact for the same reasons nurses must make in-person contact when a patient does not show up for an NUEC appointment. The nurse cannot assume that a "refusal" is in fact volitional, as discussed previously. It is possible that: the patient was not aware pill line was taking place; COs coerced the patient to not appear at pill line; other residents coerced the patient to not appear; the patient has become so ill that he or she is unable to get to the pill line. *See* Paragraph 83.

101. If the patient refuses a medication (either at the pill line or after being tracked down), the nurse must take certain steps. Generally, the nurse should first try to determine the patient's reason for refusing and then take appropriate steps. For example, if the patient informed the nurse that at a visit earlier that day the doctor told the patient to stop taking the medication, the nurse would withhold the medication and recheck the patient's medical record. If the patient had questions or concerns about the medication, the nurse might provide education and encourage the patient to take the medication. The nurse's response to a refused medication must also take into account the nature of the medication. For some medications, such as insulin or antibiotics, missing just one or two doses can be dangerous, and immediate intervention is

[28] This discussion focuses on medications which are ordered on a regular basis as opposed to those which are ordered to only taken when the patient feels they need it ("PRN").

necessary. For other medications, a higher threshold of missed doses is acceptable. For some medications, such as seizure medications, intermittently missed doses can be as dangerous as consecutively missed doses. Generally, when intervention for missed medication is necessary, if the nurse cannot successfully solve the problem him- or herself, the nurse would consult with a practitioner. The practitioner's options generally include meeting with the patient and either convincing the patient to continue the medication, finding an alternative medication, or executing an informed refusal.

102. Given the knowledge and judgments (assessments) required for a nurse dealing with a refusal, the above discussion assumes that the nurse is an RN. When medications are administered by someone with lesser training and licensure (e.g. LPN, medication technician, CO, etc.), these individuals are unable to – and should not be allowed to – make these judgments independently. Thus in safe health care systems where non-RNs administer medications, there must be (a) very simple and clear guidelines (e.g. policies/procedures) for the person administering the medication informing him or her on how to deal with medication refusals, (b) those guidelines need to be clinically safe (e.g. set the proper threshold for the number of refusals for a given medication that triggers some action), (c) the guidelines must be followed by staff regardless of who administers the medication, and (d) all care must be accurately documented in the patient's medical record. The "workhorse" of this documentation is the Medication Administration Record (MAR), a month-specific form on which medication administrators initial administration of each dose or the reason for non-administration.

103. Failure to deal appropriately with medication refusals presents an obvious risk to patient safety. Many, if not most, medications administered in the prison setting are meant to treat serious medical conditions. When patients don't receive these medications as prescribed,

the condition for which the medication was prescribed can get worse. Patient harm can range from untreated pain to death and many other serious outcomes in between, such as fractures and lacerations from uncontrolled seizures, heart attacks from uncontrolled blood pressure, and respiratory failure from uncontrolled asthma.

104. Administration of medications at pill line in NDCS suffers from widespread lack of adherence to the principles of safe medication administration described above. Among all those involved in medication provision, from COs to nurses to prescribers, to administrators, there is wide variation, uncertainty, and misunderstanding of the correct process and the role of other actors, all facilitated by an unclear policy. In addition to this global problem that permeates all facilities, there are three significant local deviations from other safe practices: long outdoor pill lines at NCCW; distant outdoor pill lines at TSCI; and pre-pouring of medications at TSCI. While present only at three facilities by my observations to date, they are preventable by, and therefore attributable to, a lack of policies prohibiting these operations. Further, any prisoner who may be transferred to these facilities is at risk of harm from these practices.

105. The global problems with medication administration in NDCS can be viewed by examining three actors: nursing staff (nurses and nursing supervisors), COs, and prescribers (i.e. practitioners).

106. The confusion that exists among NDCS **nursing staff** regarding missed medications is well illustrated by information I was told during interviews of staff at DEC. When I asked LPNs how they are supposed to handle multiple missed medications, I received multiple responses:

-We fill out a refusal form and the practitioner keeps track of it and talks to people if they think there are too many;

-We notify someone after 3 consecutive misses;

-We notify after 3 misses in a 14 day period;

-If we're concerned we make a copy of the MAR [Medication Administration Record] and send it to the practitioner;

-If it's an antibiotic or insulin, we might notify someone sooner;

107. When I asked the nursing supervisor how they handle multiple missed medications, she said:

-If patients don't want their medication for more than 7 days they send the information to the practitioner.

-LPNs use their judgement, so the 7 day threshold might be shorter for some medications.

108. When I asked the nursing supervisor under what circumstances a patient might miss a medication and be marked as a "no show," she said that might happen if the patient was out to court. When I asked how the staff knows when the patient returns from court so that they can administer the medication, she said that is a problem, acknowledging that staff are not always given this information and are not always able to provide the missed medication.

109. At other facilities, different actors also provided vague answers, answers that were different from other respondents, or sometimes had no answer. Among the reasons that these responses paint a picture of a dangerous system is the reliance on LPNs to use their judgment about when to alert prescribers to missed medications. Such judgments require such knowledge as why the medication is being used in a particular patient and how the medication

work and is metabolized. As explained in more detail elsewhere in Paragraphs 21-27, LPNs do not have the expertise, nor are they permitted under their licenses to exercise such judgments.

110. In NDCS (except TSCI where medical staff administer all medications), many medications are administered by COs.[29] Most COs I interviewed did not view it as their responsibility to address missed medications. It is their understanding that medical staff review the MARs on a regular basis and take appropriate action. When interviewed, medical staff had varying reports of whether, how often, and how such review takes place. Thus the use of COs to administer medications presents a risk to patient safety due to the resultant poor handling of medication refusals. The use of COs to administer medications presents a second, unrelated risk to patient safety that flows from the *a fortiori* breach of confidentiality that occurs when COs become aware of the medications patients are prescribed, and therefore the diagnoses from which they suffer. An explanation of why that risk exists appears in Paragraph 73. Given the fact that NDCS facilities are staffed with nurses 24/7, I could discern no operational reason why COs need to be tasked with an activity that nurses should be performing.

111. Finally, staff interviews revealed troubling information about the role of **practitioners**. Practitioners at NDCS have a low threshold for discontinuing medications if patients miss medications. It appears that often medications are discontinued without any discussion with the patient to confirm that the medications were missed, to confirm that the misses were refusals, and to do due diligence to understand the reasons, attempt to find

[29] Only COs who have received training and received certification a Medication Aides administer medications. While CO medication administration is within the standard of care, it is a sub-optimal arrangement because of the inherent breach of confidentiality as well as the inherent role (and ethics role) conflict: the ethical obligations of a health care professional and a correctional professional are different.

alternatives, and execute a valid and safe informed refusal. In fact some practitioners reportedly will stop *all* medications if a patient misses too many doses of a single medication.

112. The following are illustrations of impacts of the medication administration system on NDCS patients.

- Named Plaintiff Sabata receives medications to treat HIV infection. I found multiple instances where medications were not administered (either because they were refused or without explanation) but there was no contact of an RN or practitioner. For example, staff failed to administer both of her HIV medications on 7 different days over a 3 month period at a time when her HIV specialist noted that her HIV required better control by better medication adherence. Thus failing to administer medications increased the chance of the patient's disease getting worse, including developing resistance to the medications.

- Patient 30 at LCC receives medications for seizures. He apparently refused a dose. A practitioner reviewed his case and issued an order that the patient's medication compliance should be monitored closely. About 2 weeks later, a staff member sent the practitioner a copy of the patient's medication administration record showing that the patient had consistently missed his evening dose of the medication for 13 days straight. Not only had the practitioner's order for close monitoring been ignored, even in the absence of the specific order, he should have been notified of the situation much sooner. Missing this many doses of the medication greatly increased the chance that the patient would suffer a seizure.

- Patient 1 at TSCI is also on medications for seizures. He missed multiple medications for two days. There is no evidence of staff taking any action. On the third day the patient suffered multiple seizures requiring evacuation to the ER.

- Patient 47 is at TSCI. On November 2, 2017, a practitioner summarily discontinued the patient's insulin and morning blood sugar tests for non-compliance. This is a highly dangerous step to take with a patient and should only be undertaken after careful and repeated counseling and searches for alternatives. Instead, I could find no evidence of informed refusal or even an earlier discussion with the patient as far back as at least August 31, 2017 when the physician had last renewed the patient's insulin.

113. The confusion and inconsistencies in management of missed medications is facilitated, in part, by unclear policy. AR115.10 Pharmacy, section II.F is in direct conflict with Medical Protocol 48 (NDCS 078818) with regard to stopping a medication for non-compliance. The Protocol says "An encounter with the patient to discontinue treatment will be scheduled *if needed*" but the Policy says "All physicians, psychiatrists and prescribing mid-level practitioners *will meet* with the patient prior to a consideration of medication discontinuation for non-compliance and for abuse."

114. Aside from the global problems described above, there are three local deviations from safe medication administration practices. **NCCW operates an outdoor pill line that is too long**. Exposure to the cold is an adverse condition for all patients, but especially for those who may be frail or suffering an infection. Exposure to heat is an adverse condition for patients on psychotropic medications. Certain psychotropic medications blunt the body's ability to regulate temperature. When exposed to direct sunlight in elevated temperatures they are at risk for becoming overheated (including heat stroke, which can be fatal). The pill line at NCCW is

conducted outdoors.[30] On the night that I visited NCCW, at approximately 45 minutes after pill line had begun, I observed more than 20 patients still waiting on line outside. At the time the temperature was 44 degrees F. **TSCI also operates an outdoor pill line, placed more than a tenth of a mile from some living units**. While this line is kept short by sequencing housing units, even the short line can constitute an unsafe exposure to the elements for a patient suffering from an infection, who should remain indoors, resting and staying warm.

115. **At TSCI, medications are pre-poured.** "Pre-pouring" means nurses remove the medication from the patient-specific labelled container and place it in a temporary container (usually a paper cup) at some point in time prior to pill line. The term "pouring" is used even though most medications are in pill form. The nurse places a slip of paper in the cup with the patient's name. If the patient is on more than one medication, they are mixed together in the cup. Pre-pouring is acceptable practice in some limited circumstances, none of which apply at TSCI. When nurses administer medications, they must verify that the right patient is getting the right medication at the right dose, at the right time, by the right route (the "Five Rights" of medication administration). When one nurse pre-pours the medication, and a different nurse administers it, as is the case at TSCI, the signing nurse cannot possibly attest to all of the "rights" and thus his or her signature is a falsification; this latter nurse is forced to assume that the former (undocumented) nurse made no errors. This violates safe medication practice and truthful documentation practice.

116. In summary, based on interviews, observations of operations, and review of documents, certain global medication practices in NDCS are not safe. These unsafe practices

[30] The patient actually receiving her medications is under a shelter, but all others are directly exposed to the elements.

place any patient at a substantial risk of serious harm. There are also additional unsafe medication practices limited in location to two prisons. The unsafe environmental exposures at NCCW could potentially affect any woman incarcerated in NDCS. The unsafe pre-pouring practice at TSCI could potentially affect any medium or maximum custody male incarcerated at NDCS because he could be transferred to TSCI during his incarceration.

F. Record Keeping

117. Organized, accurate, complete, and legible medical records are absolutely necessary to provide safe health care. They provide the most essential tool by which health care providers communicate with each other about the patient's health status and needs. Based on my review of dozens of medical records of patients at NDCS facilities, I found that the NDCS medical records are not adequate to provide safe care for all patients, because they are disorganized, inaccurate, incomplete, and illegible.

118. While there is an NDCS policy, AR 115.03, governing the medical record that requires it to be "comprehensive," "chronological," "complete," and organized in a "uniform manner," the policy is not followed.

119. Many records I reviewed were disorganized. One record at an institution might be organized according to one organizational scheme, whereas another record might be organized differently. Even within a single record, documents were not always organized in a consistent way. Documents were often out of chronological order.

120. Many documents were inaccurate. For example, every medical record is supposed to have a problem list which highlights, at a glance, all the patient's significant conditions and history. With the exception of the medical records at TSCI, many problem lists were incomplete and thus inaccurate (and sometimes also misfiled or missing).

121. Many documents were incomplete. For example times, dates, and professional credentials were often missing from progress notes. Documents, such as hospital reports or MARs were missing. The "Non-Emergency" forms submitted by COs requesting care on behalf of patients via the urgent care pathway, are, by design, not filed at all in the patient's medical records. These documents contain key patient information explaining the background of new complaints and therefore should be part of the record.

122. Many documents were illegible. For example, many MARs were 3-hole punched to place them in the record. However, one of the punches frequently eliminates the date (month) of the MAR. Progress notes are often hard to read. One practitioner at DEC attempts to solve the problem of illegible handwriting by dictating his notes. This would be good except that he uses Dragon software and fails to confirm the results. As a result, portions of his notes are gibberish, as in the following two passages from the medical record of Patient 12: "Currently there is an achiness the patient made a lower have true seizures but may have nonepiloeptic seure-like behavior." "To be noted that a nurology consultation whe he was heart rate in 2015 neruologist felt that the seizure-like bevrious was not epileptic in nature."

123. In summary, medical records in NDCS are insufficient to support safe patient care for all patients.

G. Management

1. Quality Monitoring and System Improvement

124. No health care operation is perfect. Any health care operation can have weakness and can experience errors as a result of those weaknesses. However, a safe health care operation is one that has robust systems for detecting weaknesses and patching those weaknesses before an error occurs, and robust systems for addressing errors that do manage to occur, to discover their

root causes, and fixing the root causes in a permanent manner. Three key activities practiced by safe health care operations to achieve these goals, are: (a) identifying meaningful performance indicators – in sufficient number – to monitor the quality of care delivery; (b) measuring these indicators and measuring them properly; and (c) properly responding to system errors discovered as a result of measuring these indicators and other monitoring activities. Based on my interviews and review of documents, systemic deficiencies in all three of these activities threaten patient safety in NDCS. **Meaningful performance indicators** measure key aspects of the health care operation in a way that informs any needed change. The following are some examples of meaningful performance indicators that a correctional health care system might implement:

- The facility maintains the required number of trained and qualified nurses, as stated in the staffing plan, to assure delivery of care consistent with the standard of care. If performance on this indicator falls below the required level, it informs the necessary change: more staff need to be hired immediately.

- After submitting an IIR indicating a need for health care, residents are evaluated in person by a qualified medical professional within 24 hours. If performance on this indicator falls below the required level, it informs the necessary change: IIRs need to be processed more rapidly.

- When a nurse evaluates a patient with an urgent complaint, the nurse delivers care consistent with the standard of care. If performance on this indicator falls below the required level, it informs the necessary changes: nurses need better training and/or supervision.

125. NDCS does not identify a **sufficient number of meaningful performance indicators** to adequately monitor the safety of patient care delivery. NDCS's medical monitoring program is guided in part by AR 101.04 Performance-Based Measures and Key Indicators. This policy lists 21 performance-based required measures related to medical care. Of these 21 "measures," none actually measure data which can meaningfully inform managers about the quality of care delivered. Instead, they are all simple counts. For example, the first measure is a crude count of the number of "Encounters with Health Care professionals." Counting the number of encounters in a period of time does nothing to inform managers whether those encounters were done in a timely or minimally competent manner. This policy also identifies a subset of performance measures as "Key Indicators" which are intended to "help NDCS define and evaluate how successful it is in making progress toward long-term organizational goals." Of NDCS's 28 Key Indicators, only 4 are related to medical care. Of these 4, 2 (the number of residents diagnosed with a certain type of staphylococcal infection; the number of medical deaths) are duplicates of the aforementioned performance-based measures, and, as previously cited, only serve to provide counts of events. Thus there remain only 2 Key Indicators in the entire policy which do provide some indication of undesirable medical events (number of high-risk events or adverse outcomes; number of health care grievances found in favor of resident). But even these two measures are flawed in that they are raw counts of events, unadjusted by fluctuations in total population, rendering meaningless any observed change in the count from month to month.

126. NDCS's medical monitoring program is also guided by Medical Protocol 36 CQI [continuous quality improvement] Audit Plan. According to this policy, NDCS staff are required to conduct 5 audits of medical health care delivery: how well nurses deliver care when using

each of 4 NTPs (NTP #1 Abdominal Pain, NTP #4 Asthma, NTP #9 Chest Pain, and NTP #44 Shortness of Breath) during episodic care; and whether MARs are complete. These 5 audits measure only a narrow slice of all the medical care delivered at the facilities. And even these meager 5 audits are incomplete. For example, the audit of use of the Abdominal Pain NTP measures 12 parameters of a patient encounter. Of the 12, 11 are limited to measuring the process of care (i.e. whether nurses *did or did not do something* required by the protocol), not the quality of care (whether the nurses *did things correctly*). For example, one audit question is: "Was patient physical assessment completed?" However, the audit ignores whether the physical assessment was sufficient, given the patient's symptoms.

127. In his deposition testimony, Dr. Deol states that these are the only medical audits that NDCS conducts. In his deposition testimony on page 123, Dr. Deol provides an example of just one of the hundreds of other possible important aspects of care that his department is not currently measuring: When asked how many patients receive their previous medications without hiatus when admitted to NDCS, he replied that he thinks that 90% do, but that NDCS does not conduct an audit of this, so 90% is, at best, an estimate, based on some talking to people and other vague inputs. Deol Dep. 124:5-125:11.

128. AR 115.01 Health Authority and Administration sets an expectation for additional audits restricted to care delivered by practitioners ("internal review for all health care practitioners"), but with the exception of "review of prescribing practices," they are vague or are not relevant to practitioners. For example, one audit requires review of the practitioners' "administration of medication" practices. But practitioners do not administer medications. So an audit of how well practitioners administer medications is meaningless.

129. Thus the quantity of meaningful performance indicators NDCS has identified in policy is grossly insufficient to monitor the quality of medical care delivery in a complex medical care operation.

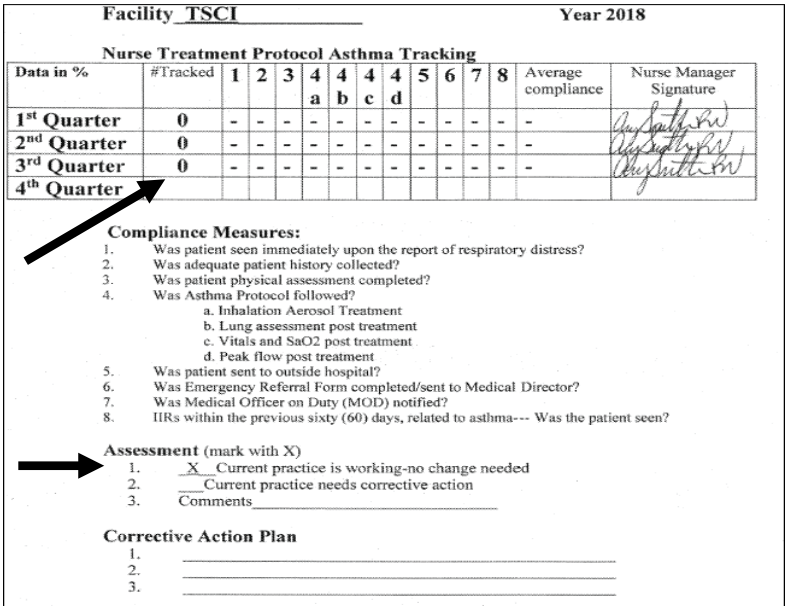
130. Even where NDCS has identified performance indicators that should be measured, it often fails to **measure the indicators correctly or measure them at all**. According to the aforementioned Medical Protocol 36, NDCS staff are supposed to conduct an audit of the nurses' use of NTP #1 Abdominal Pain annually at each facility. However, according to documents produced by Defendants to date, there is no evidence this audit was conducted in 2013, 2014, 2015 or 2016 at several NDCS facilities. Even when audits are conducted, they often involve so few patients as to be meaningless. For example, for the two annual audits (2017 and 2018) of NTP #4 Asthma conducted at DEC, auditors examined a combined total of two patients' charts![31]

131. According to the aforementioned AR 115.01 Health Authority and Administration, NDCS is supposed to conduct "internal review for all health care practitioners." However, in his deposition testimony Dr. Deol stated that NDCS does not currently do some of the review required by policy, specifically bullet 2: "Collecting, trending, and analyzing of data combined with planning, intervening, and reassessing." Deol Dep. 187:25-188:13. The deficiency, though, likely extends beyond this single bulleted element. For example, the third bullet requires NDCS to "Evaluat[e] defined data which will result in more effective access, improved quality of care, and better utilization of resources." If, as Dr. Deol stated, NDCS is not

[31] There are no specific minima for the number of charts that need to be reviewed for such an audit, but it would be unusual, for a population of this size, to find a prison-based audit with fewer than 20 to 40 charts reviewed over a two year period. Clearly a sample size of two is wholly inadequate.

collecting and analyzing data (Bullet 2), it is difficult to imagine how it can be evaluating that data (Bullet 3).

132. The monitoring of the use of NTP #4 Asthma at TSCI for 2018 is particularly troubling; see the figure below.



Facility TSCI **Year 2018**

Nurse Treatment Protocol Asthma Tracking

Data in %	#Tracked	1	2	3	4 a	4 b	4 c	4 d	5	6	7	8	Average compliance	Nurse Manager Signature
1st Quarter	0	-	-	-	-	-	-	-	-	-	-	-	-	
2nd Quarter	0	-	-	-	-	-	-	-	-	-	-	-	-	
3rd Quarter	0	-	-	-	-	-	-	-	-	-	-	-	-	
4th Quarter														

Compliance Measures:

1. Was patient seen immediately upon the report of respiratory distress?
2. Was adequate patient history collected?
3. Was patient physical assessment completed?
4. Was Asthma Protocol followed?
   a. Inhalation Aerosol Treatment
   b. Lung assessment post treatment
   c. Vitals and SaO2 post treatment
   d. Peak flow post treatment
5. Was patient sent to outside hospital?
6. Was Emergency Referral Form completed/sent to Medical Director?
7. Was Medical Officer on Duty (MOD) notified?
8. IIRs within the previous sixty (60) days, related to asthma--- Was the patient seen?

Assessment (mark with X)

1. _X_ Current practice is working-no change needed
2. ___ Current practice needs corrective action
3. Comments_____

Corrective Action Plan

1. _____
2. _____
3. _____

133. For the annual audit of 2018, NDCS auditors reviewed the charts of zero patients at TSCI to measure performance on this NTP (upper arrow). Yet despite the absence of any audit data, the auditors concluded that the current practice was acceptable (lower arrow). Thus even for the performance measures that NDCS has identified as necessary to monitor, it often fails to monitor them correctly or at all.

134. Finally it is important to **properly respond to system errors** discovered as a result of measuring performance indicators so that the underlying system weakness can be fixed. This often does not happen at NDCS. For example, auditors measured performance on NTP #9 Chest Pain on 10 separate occasion during 2017 and early 2018. On each occasion they measured

12 mandated activities. The results were dismal. For example, they found 0% compliance on 16 of the 120 individual measures and between 1% and 50% compliance on another 30 measures. Despite these results, indicating that the care of patients with chest pain at TSCI is very poor and places patients at significant risk of harm, I was unable to find any analysis of the reason for these errors or any appropriate plan for remediation via a corrective action plan.

135. One of the most important, if not the most important, tools for so discovering the reason for errors is conducting a Root Cause Analysis of the error. In the absence of understanding and correcting the root cause of an error, patient safety science tells us that the error is likely to recur. Based on my interview of a facility health care manager, and review of CQI documents, NCDS does not conduct root cause analyses.

136. Finally, even when NDCS does develop corrective action plans they are not only uniformed by a Root Cause Analysis of the error, but the solutions they implement are short-term "band-aids" unlikely to result in sustainable change. For example an audit at LCC in 2018 found that practitioners were documenting visits improperly (failure to use the "Subjective; Objective; Assessment; Plan" format). The action plan was "Discussed with LCC [practitioners]. All LCC [practitioners] agree to use SOAP notes." In many other examples, the action plan was "Discuss at [month] staff meeting." These are necessary, but temporary, remedies. Without also making changes to permanent, system-wide tools, such as policies, procedures, forms, initial and on-going training curricula, etc., once the staff and supervisors present at the time of the corrective action discussion have moved on or have forgotten the staff meeting, the errors will recur; nothing will have changed.

137. In summary, NDCS identifies an insufficient number of meaningful aspects of medical care delivery, does not measure these aspects well (or does not measure them at all),

does not effectively determine the cause of errors which do occur, and does not implement sustainable change to remediate the errors. As such, the mechanisms for monitoring access to and quality of medical care are quite deficient, posing a threat to the health of residents at NDCS.

2. Leadership and Oversight

138. An effective health care operation requires effective leadership and oversight. Among other qualities, the leader must (a) envision and design a safe health care operation, and (b) have an accurate picture of the current state of that operation. Based on testimony provided by Dr. Deol during his deposition, I do not believe that he fully understands what constitutes a safe operation nor does he have an accurate picture of the current state of key medical operations in NDCS.

139. Dr. Deol's testimony provides two examples of lack of understanding of safe operations. On page 37, Dr. Deol stated that it is his expectation that all individuals who arrive at Intake undergo the medical screening within 24 hours of arrival.[32] Intake screening is supposed to be accomplished as soon as possible after arrival. According to the standard of care, this translates to minutes to a very few hours, as described more in Paragraph 45. Indeed, part of the purpose of Intake screening is to assure that the arriving individual is healthy enough to be admitted and to begin any needed treatments. Thus the Intake process that Dr. Deol envisions is a dangerous one. On page 138, Dr. Deol stated that he thinks his staff write prescriptions for any medications that are medically necessary.[33] Deol Dep. 136:10-17. He does not, however, include PRN ("as needed") medications under the rubric of medical necessary medications. *Id.* This is

[32] He also stated that currently only 90% of individuals are processed within the 24 hour limit. Even if 24 hours were a safe goal, that 10% of individuals are screened beyond 24 hours would be highly dangerous.

[33] The importance of distinguishing between medications which are and are not medically necessary is that NDCS medical staff will often instruct a patient to purchase the latter from commissary, which, in turn, means that if the patient is indigent, he may not receive it.

not consistent with the standard of care. Indeed, the fact that a patient only requires a medication at certain times, under certain circumstances, does not automatically make that medication not medically necessary. Thus Dr. Deol accepts a medical system in which indigent patients who cannot afford to buy PRN medications at the commissary may not receive medically necessary care.

140. Dr. Deol's testimony provides five examples of his lack of an accurate picture of the operation he leads. First, Dr. Deol stated that COs are not allowed to read patient IIRs. Deol Dep. 94:16-17. Related to this, he stated that it is his understanding that patients place their medical IIRs in a dedicated box which is accessed by medical staff. Deol Dep. 92: 20-22. In reality, in most, if not all NDCS facilities, IIRs are placed in the single general mail box intended for all written communications, and it is a CO who retrieves the contents and reads any IIRs to determine where to send them (including making a decision whether the IIR should be sent to medical, mental health, or dental staff). Dr. Deol also stated that IIRs are triaged within 1 day of receipt (except on weekends). Deol Dep. 96:16-22. Based on my interviews of staff who oversee the process, my interviews of patients who have submitted IIRs, and my review of medical records, IIRs triage often takes longer than Dr. Deol believes. Further, Dr. Deol stated that all LPNs receive didactic and on-the-job training regarding how to use NTPs. Deol Dep. 153:4-12. Based on my interviews, LPNs only receive didactic training in NTPs at one facility. Lastly, Dr. Deol stated that all facilities except NSP and DEC have currently graduated to an electronic medication administration record from the old paper-based record. Deol Dep. 239:24-240:5. However, at the time of my tours LCC and TSCI did not have an electronic medication administration record.

141. Finally, Dr. Deol's testimony provided four examples wherein he is both out of touch with the current operations he oversees as well as harboring a dangerous vision of how things should work. Dr. Deol stated that LPNs can legally do anything that an RN does with the exception of starting an intravenous line, administering medications by injection, and administering a breathing treatment ("nebulizer"). Deol Dep. 151:7-22. As cited elsewhere in my report, the differences between the permissible activities of an LPN and RN are much greater than these three tasks. It is frightening that Dr. Deol is not more cognizant of the limitations of key personnel he oversees. Further, LPNs under his supervision in fact do engage in the activities he believes are not permissible. Dr. Deol stated that LPNs under his supervision only use the NTPs in limited ways. Deol Dep. 149:21-25 ("They might assist in the protocol, depending on the skilled levels and scope of practice. There might be some things that they can do and other things they can't do."). In fact, based on my record review and interviews with staff, in practice all LPNs are expected to use all NTPs fully. Contrary to Dr. Deol's stated practice, allowing *any* use of NTPs by LPNs is dangerous, as I describe elsewhere in Paragraph 25.

142. Related to this, Dr. Deol stated that LPNs are never left alone in a facility as the sole health care provider. Deol Dep. 246:4-6. Dr. Deol is mistaken. Based on my interviews with facility health care staff, depending on scheduling needs, LPNs may the only health care professional in a facility at times. Lastly, Dr. Deol stated that if a patient does not show up for a medical appointment, nurses call the living unit to find out why. Deol Dep. 104:8-15. Based on my interviews, nurses do not do this. Moreover, even if they did, such a system would be insufficient. For the reasons I described in more detail elsewhere in this report, in a safe prison system, a refusal of care must be conducted with the patient face-to-face.

143. In summary, extensive evidence in Dr. Deol's deposition testimony depicts a leader of the health care operation whose concepts of what constitute a safe health care operation are incorrect, and whose understanding of what the staff under his staff currently do and do not do—activities that impact patient safety—are mistaken.

VII. TYPICALITY OF NAMED PLAINTIFFS' CLAIMS

144. I reviewed the medical records for the Named Plaintiffs in this case. In these records I found the type of systemic errors that I would expect to find in a system with the widespread deficiencies that I describe throughout this declaration. For example, the records of the Named Plaintiffs reflected flaws in the intake screening process, access to NUEC, access to chronic care, use of force care and medication administration. In addition, this report describes numerous serious flaws in the provision of medical care at NDCS that places all residents, including the Named Plaintiffs, at risk of medical harm.

VIII. CONCLUSION

145. Based on the information I considered, in my opinion, the medical care system at NDCS places all patients at NDCS at substantial risk of serious harm. The fundamental flaws detailed above are systemic and stem from inadequate and ineffective policies and practices. In my experience, these types of problems, and the resultant harm to the patients at NDCS, can only be remedied through the development and implementation of systemic solutions.

I declare under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct, and that this declaration is executed at Tumwater, Washington this 15th day of February, 2019.

Marc F. Stern, M.D., M.P.H.