NOT FOR CIRCULATION

Guidelines on appropriate use and access to National Electronic Health Records (NEHR)

Contents

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1. Foreword

Foreword will be included when guidelines are finalised.

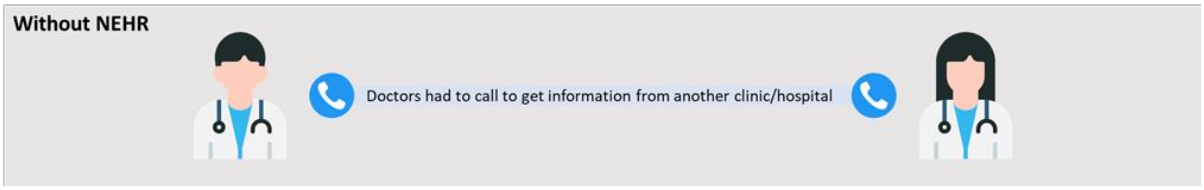
2. Introduction and Preamble

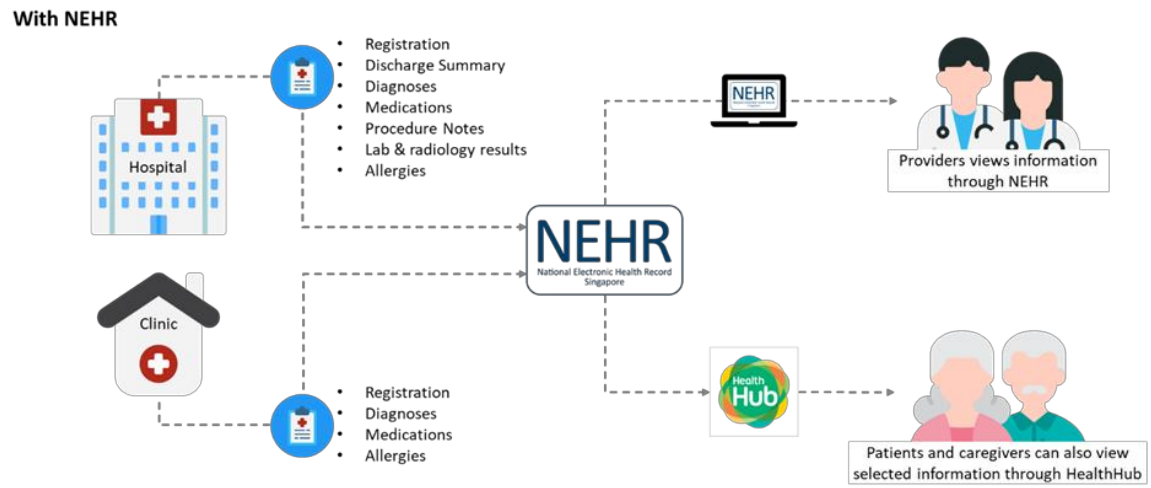
2.1. What is the National Electronic Health Records (NEHR)?

The NEHR is a centralized repository of Heath Information established in 2011 and is intended to serve as a source of information for users of the system who contribute to patient care. NEHR has been progressively deployed to both public and private healthcare institutions across Singapore to support “One Patient, One Health Record”.

Owned by the Ministry of Health (MOH) and managed currently by Integrated Health Information Systems (IHiS), NEHR is a secure system that collects certain health information across the different healthcare professionals and is intended to enhance sharing of data amongst healthcare professionals. Health Information in this context is defined as information extracted from institutions’ Electronic Medical Records (EMR) system and consolidated in NEHR. Screenshots of Health Information contained in the NEHR system from the healthcare professionals’ and patients’ perspectives are found in Annex A (note that these are a preview version).

When connected to the NEHR, an institution’s EMR system will automatically send a copy of the selected key health information (as determined by MOH) from the institution’s EMR into NEHR’s central secure server. This means that the NEHR will have updated Health Information regardless of where the patient has received their care.





2.2 Impetus for these guidelines

As more healthcare professionals use and contribute to NEHR, there will be a wealth of information available in NEHR. To help all individuals who use or have access to NEHR (i.e. users) unleash the full potential of NEHR to deliver continuing patient care, these guidelines will provide core ethical principles and suggest reasonable professional standards that should be adopted when contributing to, accessing or using NEHR.

It is hoped that these guidelines can facilitate adequate consideration by all users of NEHR on how to address and respond to different situations when contributing, accessing and

using NEHR. In the context of these guidelines, all users will be referred to as healthcare professionals, regardless of their job scope and role as regards NEHR, as all users (including clinic assistants, healthcare administrators, etc.) will be held to the same standards for healthcare professionals as laid out in the guidelines.

2.3 Key Principles and guidance on how to use these guidelines

All healthcare professionals are expected to always maintain a reasonable standard of care and conduct, including when interacting with NEHR.

2.3.1 Key Principles

To meet these expectations, we outline the following key principles on which these guidelines are based:

- Clinical Evaluation of Patients: Healthcare professionals must ensure that they have sufficient reliable information about their patients derived through good history-taking, adequate clinical examination and other relevant investigations or information sources, before they offer any opinion, make management plans or treatment. Health Information may potentially facilitate clinical evaluation of patients. These guidelines would provide some guidance on how and when NEHR may be used to aid in clinical evaluation of patients.
- Maintaining good medical records: Doctors should be aware that parts of their medical records i.e., Health Information, may be relied on in clinical care. Therefore, reasonable effort should be made to ensure that information entered into their EMR (and subsequently collected in NEHR) are accurate, clear and contemporaneous to facilitate the use of Health Information.
- Medical confidentiality: Any information recorded in a medical record is confidential. Healthcare professionals should not access NEHR records of an individual unless there is a patient care-related purpose for doing so.
- Security of medical systems: All digital systems are potentially vulnerable to cybersecurity lapses and attacks. Healthcare professionals are responsible for the upkeep of healthy cybersecurity habits, and it is their duty to use the systems responsibly and comply with all the security protocols in place.
- Legal considerations: These guidelines are written to help healthcare professionals comply with legal requirements regarding NEHR and address potential concerns they may face when using NEHR. We encourage healthcare professionals to consider these guidelines with regard to NEHR.
- Ethical considerations: These guidelines will take reference from the code of conduct of the various professional bodies, including the Singapore Medical Council's (SMC) Ethical Code and Ethical Guidelines (ECEG).

We will further explain key principles in subsequent sections of these guidelines and illustrate application of the key principles via scenarios in the Annexes. The scenarios compiled are not exhaustive, but we hope that the scenarios will allow one to distill the key principles for use of NEHR. By using NEHR, healthcare professionals might uncover more scenarios of concern. We encourage healthcare professionals to share other scenarios of concern with us so that we can further refine and improve the guidelines.

2.3.2 How to use these guidelines

These guidelines should be applied in conjunction with the ECEG, other practice guidelines, the HIA and the laws and regulations governing healthcare practice in Singapore. It should not be taken as a substitute for prevailing legislation or applicable case law.

These guidelines will also be periodically updated to reflect the changing digital healthcare landscape.

2.4 Guiding Principles on Contribution, Access and Use of NEHR

These guidelines have been structured into three sections, namely contribution, access to and use of NEHR, as this is the natural sequence of events when one refers to NEHR. Each section will elaborate on the guiding principles, which are premised on fundamental ethical principles and professional standards (see Section 2.3.1). The guiding principles are:

Guiding Principles on contribution of medical records to NEHR (Section 3.1)

- Healthcare professionals should continue to make accurate, clear, and contemporaneous medical records within their own EMR as health information extracted from these medical records will be made available on NEHR i.e., Health Information to aid and facilitate high quality continuing patient care. (Sections 3.1.1 to 3.1.3)

Guiding Principles on accessing Health Information on NEHR (Section 4.1)

- All information in NEHR should be treated with the same degree of confidentiality as all other medical records. (Section 4.1.1)
- Healthcare professionals should access NEHR when institutions grant them access for patient care purposes and they should abide by any regulations / circulars / directives issued by MOH regarding the authorised purposes for accessing NEHR. (Section 4.1.2)

Guiding Principles on use of NEHR (Section 5.1)

- Healthcare professionals should consider whether they have sufficient information about their patients derived from good history-taking, adequate clinical examination and other relevant investigations before they decide if they need to use NEHR. In certain situations, there might be a need to access NEHR prior to the consultation with a patient for patient care purpose. (Section 5.1.1)
- Healthcare professionals should be aware that NEHR information is dependent on various factors, and they should reasonably review or clarify available Health Information on NEHR prior to relying on it for clinical use. (Section 5.1.2)
- Healthcare professionals should assess whether any follow-up is required for incidental findings discovered through using NEHR. (Section 5.1.3)
- Healthcare professionals should access Sensitive Health Information[1] only when it is necessary for patient care and, where possible, should inform patients of the need to do so. (Section 5.1.4)

[1] Sensitive Health Information, as defined by MOH, includes the following:

A. Sexually Transmitted Diseases
B. Schizophrenia, Delusional Disorder, Substance Abuse and Addictions
C. Biological Parenthood
D. Termination of Pregnancy
E. Attempted Suicide
F. Abuse
G. Gender dysphoria (KIV)

3. Guidelines on Contribution to NEHR

The process of contributing health information to NEHR is automated for institutions and individuals with a compatible EMR system. As such, for healthcare professionals who use a compatible EMR system to capture the relevant information, little additional effort is required for the transmission of data from EMR to NEHR. A list of such Health Information can be found in Annex B.

3.1 Guiding Principles on contribution of medical records to NEHR

- **3.1.1 to 3.1.3: Healthcare professionals should continue to make accurate, clear, and contemporaneous medical records within their own EMR as Health Information extracted from these medical records will be made available on NEHR i.e., Health Information to aid and facilitate high quality continuing patient care. They should amend any errors as soon as reasonably possible.**

3.1.1 What is a contemporaneous medical record?

Healthcare professionals should follow guidance from their respective professions' guidelines. For instance, medical practitioners should follow the ECEG on the contemporaneousness of their own medical records (Annex C). There is no additional requirement for healthcare professionals to ensure contemporaneous medical record contribution to NEHR as specific segments of compatible EMRs are automatically contributed to NEHR. However, in situations where technical issues delay the capturing of the information into the EMR or transmission of the information from EMR to NEHR, healthcare professionals should ensure that the information is captured and transferred as soon as possible and no later than 72 hours from the patient encounter.

3.1.2 Revisions and addendums to medical records

Where a healthcare professional has identified an error in their own records on NEHR or has been informed of and verified an error in their own records on NEHR, they should promptly update it with the correct information. The addendum will then be captured on NEHR within a short period of time. Similarly, where healthcare professionals come across errors in medical records on NEHR by another user, they should inform the user so the error can be corrected. For example, if it is noted by a healthcare professional that the incorrect surgical site had been captured in the patients' medical records, they should make a reasonable effort to inform the original author of the medical records of this error.

In this process of identifying errors made by other users, healthcare professionals should maintain professional collegiality and refrain from casting aspersions on other healthcare professionals' competency.

3.1.3 Handling of patient information which may have higher confidentiality requirements

When entering information into EMR, healthcare professionals should pay attention to information that patients might not wish to be shared further, and consider how to best balance between the professional requirement to maintain accurate and complete records, while also respecting patient privacy. Examples of such patient information include information relating to abortion, sterilization, organ transplantation, advance medical directives and lasting powers of attorney.

You may refer to Annex D for scenarios that illustrate the key principles surrounding appropriate contribution to NEHR.

4. Appropriate Access to NEHR

Under the current NEHR policy, the primary purpose for accessing NEHR should be patient care. Healthcare professionals should limit NEHR access to individuals directly involved in patient care and/or who are formally employed or engaged by the healthcare institution carrying out patient care .

4.1 Guiding Principles on accessing medical records on NEHR.

- **4.1.1: All information in NEHR should be treated with the same degree of confidentiality as all other medical records.**
- **4.1.2: Healthcare professionals should access NEHR when institutions grant them access for patient care purposes and they should abide by any regulations / circulars / directives issued by MOH regarding the authorised purposes for accessing NEHR.**

4.1.1 Maintaining confidentiality of medical records on NEHR.

All information in NEHR should be treated with the same degree of confidentiality as all other medical records.

All healthcare professionals must maintain confidentiality when accessing medical records (Annex E). This should also be applied when accessing medical records on NEHR, unless patients' consent has been sought to disclose certain Health Information to other parties.

4.1.2 Access to NEHR

4.1.2.1 Individual institutions' approach for granting NEHR access to healthcare professionals

Individual institutions should only grant NEHR access to healthcare professionals who have a legitimate, patient-care related need based on their roles, and those individuals should be educated on the importance of maintaining patient confidentiality of the records they have access to in NEHR.

Access to NEHR should only be granted to those who are required to consult NEHR for the purposes of patient care. Which individuals are granted access will depend on the roles the they play in each individual institution. As such, each institution should determine which of their personnel should be granted access to NEHR before seeking approval from the relevant authority.

4.1.2.2 Authorised and Unauthorised Access to NEHR

Healthcare professionals should ensure that they abide by any regulations/circulars/directives issued by MOH regarding the authorised purposes for accessing NEHR.

Institutions should establish policies and procedures and provide appropriate training to ensure that NEHR is only accessed for authorised purposes. Unless prior approval from MOH has been sought, or otherwise specified by legislation, healthcare professionals must not use NEHR for non-patient care related purposes. This includes use of NEHR for employment, insurance or research purposes, regardless of whether patient consent has been obtained or not.

MOH is considering legal penalties for unauthorised use of NEHR.

4.1.2.3 Documentation for NEHR access

Healthcare professionals should document, where appropriate, their access to NEHR for patient-care related purposes, when they access NEHR.

Where a healthcare professional has accessed NEHR for care related purposes, the care interaction with the patient should be adequately and appropriately documented as evidence of the care process having taken place.

4.1.2.4 NEHR access for patients who have opted out.

Healthcare professionals should not access NEHR if a patient has opted out.

In the scenario where a patient has opted out of NEHR and healthcare professionals are unable to access their NEHR records, they should make note of this in their consultation notes. This is to ensure there is an explicit record on the patient's opt out status at that point in time for healthcare professionals to reference in the event that the patient subsequently opts back into NEHR.

4.1.2.5 Privilege to access patient's Health Information on NEHR.

Healthcare professionals must not abuse their access to patient's Health Information on NEHR.

Beyond the legal requirement to only access NEHR for the purpose of patient care or any other legally prescribed purpose, access to patient's medical records is a privilege built upon the trust of patients that healthcare professionals will use the medical records for the purposes of patient care. Therefore, it is important to emphasise to healthcare professionals that such privilege must not be abused for the purposes of personal gain, curiosity or other frivolous or malicious purposes. When consulting NEHR for the healthcare professional's patients' health information, healthcare professionals must not access personal, relatives', friends', colleagues', any related or unrelated persons' Health Information on NEHR, unless said persons are the healthcare professionals' patients.

You may refer to Annex F for scenarios that illustrate appropriate contribution to NEHR.

5. Appropriate Use of NEHR

The preceding sections have set the stage for NEHR use by recommending contribution standards and bounds of access. This section will discuss the guiding principles surrounding the use of NEHR.

5.1 Guiding Principles on use of NEHR

- **5.1.1: Healthcare professionals should consider whether they have sufficient information about their patients derived from good history-taking, adequate clinical examination and other relevant investigations before they decide if they need to use NEHR. In certain situations, there might be a need to access NEHR prior to the consultation with a patient for patient care purpose.**
- **5.1.2: Healthcare professionals should be aware that NEHR information is dependent on various factors, and they should reasonably review or clarify available Health Information on NEHR prior to relying on it for clinical use.**
- **5.1.3: Healthcare professionals should assess whether any follow-up is required for incidental findings discovered through the use of NEHR.**
- **5.1.4: Healthcare professionals should access sensitive health information only when it is necessary for patient care and, where possible, should inform patients of the need to do so.**

5.1.1 Scope of Use of NEHR

Healthcare professionals should consider whether they have sufficient information about their patients derived from good history-taking, adequate clinical examination and other relevant investigations before they decide if they need to use NEHR. In certain situations, there might be a need to access NEHR prior to the consultation with a patient for patient care purpose. See further explanation below.

History taking and physical examination remain the primary approach in clinical assessment. NEHR should be a complementary tool to aid clinical assessment. With more healthcare professionals using NEHR, the amount of Health Information at the disposal of the healthcare professional is expected to increase dramatically. However, healthcare professionals are not expected to consult NEHR and review every single past medical record, at every single clinical encounter. Instead, healthcare professionals should consider when to consult NEHR for the purposes of patient care using the factors listed below, as well as guidance from ECEG (Annex G).

We provide some factors to consider when it is reasonable to consult NEHR:

- **Does history taking and physical examination suffice to make a reliable clinical assessment?** Where a healthcare professional is satisfied that the information provided through the patient's history and their examination is sufficient for them to assess and treat the patient, there is no requirement to consult NEHR. For instance, if a young and healthy patient is seeking treatment for cough, and the history and examination taken is sufficient to conclude that the patient has an upper respiratory tract infection, there may not be a need to consult NEHR to obtain more health information to make a diagnosis or start a treatment.
- **Is more information required?** Users should refer to NEHR if the patient is unable to provide sufficient details during the course of history taking, or if they suspect that the history provided by the patient is incomplete. For example, if a patient claims to have undergone an operation 2 years ago but is unable to name the operation or what it involved, it is reasonable for the user to consult NEHR for further information.

- **Targeted consultation of NEHR to limit scope of NEHR review.** NEHR is an adjunct to assist healthcare professionals to obtain information that is missing or unclear from the patient's history and physical examination. Healthcare professionals may choose to limit their review of NEHR to clarify their doubts on the patients' history or to obtain any missing information required for their assessment and treatment of the patient's condition. In doing so, healthcare professionals are not expected to review every single record in NEHR each time it is consulted, however they are encouraged to document their search for certain information in the name of patient care especially if this search ends up being extensive.

5.1.2 Reviewing of NEHR records before use

Healthcare professionals should be aware that the accuracy of NEHR information is dependent on various factors, and they should reasonably review or clarify available Health Information prior to relying on it for clinical use.

Healthcare professionals should recognise that information in NEHR is dynamic (e.g., new test result may be added) and is subject to the accuracy of the clinical information at the time of writing. Healthcare professionals should corroborate any NEHR information with their own assessment before acting on the information. Where there are inconsistencies, they should assess the validity of NEHR information prior to relying on this information for their own clinical use.

5.1.3 Incidental findings within NEHR

Healthcare professionals should assess whether any follow-up is required for incidental findings discovered through the use of NEHR.

Discovery of incidental findings in medical records is not a new phenomenon. Hence, the approach to dealing with incidental findings should be no different from before the inception of NEHR. When incidental findings are discovered, healthcare professionals should assess whether the findings correlate with other clinical findings e.g., symptoms from history taking and signs from physical examination. Where it is important and relevant, healthcare professionals should discuss these findings with their patients and follow up with the necessary action, such as further investigation, treatment or referral.

5.1.4 Handling Sensitive Health Information

Healthcare professionals should access sensitive health information[2] only when it is necessary for patient care and, where possible, should inform patients of the need to do so.

MOH defines a list of Sensitive Health Information which will have additional log-in controls on NEHR. While we recognise that all medical information is considered sensitive, for the purposes of this section we will be discussing guidance on how to handle Sensitive Health Information, as defined by MOH. When reviewing Sensitive Health Information on NEHR, where possible, healthcare professionals should explain to their patients why they think they need to access this information to provide better patient care. When reviewing this information, healthcare professionals should be mindful to handle this data with care to

[2] Sensitive Health Information, as defined by MOH, includes the following:

A. Sexually Transmitted Diseases
B. Schizophrenia, Delusional Disorder, Substance Abuse and Addictions
C. Biological Parenthood
D. Termination of Pregnancy
E. Attempted Suicide
F. Abuse
G. Gender dysphoria (KIV)

prevent any embarrassment to the patient or any unintended disclosure. For instance, healthcare professionals should ensure that there is sufficient privacy before accessing this information and subsequently discussing it with the patient.

You may refer to Annex H for scenarios that illustrate appropriate contribution to NEHR.

6. Conclusion

Conclusion will be included when guidelines are finalised.

7. Annexes

Annex A – Preview of NEHR

Screenshots of NEHR from patients' perspective and clinicians' perspective will be included when guidelines are finalised.

Annex B – List of health information that will be contributed to NEHR

Healthcare professionals will be required to contribute the following summary data fields to NEHR:

1. Demographics
2. Visit Diagnosis/Patient problem list
3. Procedure Notes (eg. OT report, Endoscopy reports)
4. Investigation Results (eg. Laboratory, Radiology, Cardiac)
5. Prescribed Medications / Dispensed Medication
6. Discharge Summaries

Annex C – Maintaining Good Medical Records as guided by the ECEG.

Medical Records [Section B3 of the ECEG]

(1) Maintaining clear and accurate medical records enhances good patient care and ensures high quality continuity of care.

(2) Medical practitioners must maintain clear, legible, accurate and contemporaneous medical records of sufficient detail to enable a high quality of continuing care.

(3) Medical practitioners must make their records at the time of engagement with patients, or as soon as possible afterwards.

(4) Those medical records must include all clinical details about their patients, discussions of investigation and treatment options, informed consents, results of tests and treatments and other material information. If a medical practitioner is delegated an aspect of the care, the records may be confined to what is relevant to that portion of the care.

(5) If patients request for information not to be documented, the medical practitioner may accede to their requests, but they must ensure that this does not adversely impact their own care or the safety of others.

(6) Medical notes must be written or entered in objective language without showing disrespect for patients, or otherwise disparaging or insulting patients in any way.

(7) Medical records must not be amended in order to hide anything, or to otherwise mislead. Amendments are only permitted to make genuine corrections or amplifications.

(8) If the medical records are made on behalf of the medical practitioner, reasonable steps must be taken to ensure that the quality of the records is up to the required standards.

(9) Within the ability of the medical practitioner, all medical records must be kept safely and securely and are not at risk of unauthorized access and breach of medical confidentiality. If the medical record systems are not within the control of the medical practitioner, it is the duty of the medical practitioner to use the systems responsibly and abide by all the security protocols in place.

(10) Patients have a right to their medical information (though not the physical medical records or the original digital records) and when requested, unless there are exceptional circumstances, such information from their medical records should be made available to them, communicating it in a way that best suits the patients' needs, such as in a medical summary or report.

Annex D - Scenarios to illustrate appropriate contribution to NEHR.

Scenario A: Reviewing and Clarifying Information on NEHR before relying on it.

Patient A informed Dr X that he had no drug allergies. Dr X had no reason to suspect otherwise and entered into his record that the patient had no known allergies. This data was then contributed to NEHR.
Over the years the patient had developed an allergy to Augmentin however this information was not captured in NEHR.
Patient then visited Dr Y, who noted Dr X's entry regarding the allergies and did not ask the patient about their allergy history. Dr Y then proceeded to prescribe the patient Augmentin. Patient A subsequently had an anaphylactic shock from taking Augmentin.

Professional Guidance:
Healthcare professionals should be aware that the accuracy of NEHR information is dependent on various factors, and they should reasonably review and clarify available information prior to relying on it for clinical use.

- Healthcare professionals should be aware that information in NEHR is only accurate as at the time it was entered and may change. Further, although extremely rare, such information may be subject to human error. Where there is no contrary information/inconsistencies and where the information in NEHR is deemed reasonably consistent with the doctors own assessment, a doctor acting in good faith should not be deemed negligent.
- If Dr X had taken a complete history including checking patient's allergies through patient interview and NEHR, it will not be reasonable to hold Dr X accountable for contributing history to NEHR that patient has no known drug allergies.
    - *Reminder:* Healthcare professionals are reminded that medical records reflect their clinical competence and professional judgement in their respective clinical encounters. Good history taking and physical examination skills remain to be the cornerstone of high-quality medical record contribution to NEHR.

Annex E – Maintaining Medical Confidentiality when accessing medical records on NEHR.

Medical Confidentiality [Section C7 of the ECEG]

(1) Patients have a right to expect that any information provided in the context of clinical care must be kept confidential unless there are good reasons for sharing the information.
(2) Medical practitioners must maintain medical confidentiality unless patients consent for specific disclosure to other parties.
(3) Reasonable care must be taken to ensure security of the systems used for staring medical records. If the systems are not within the medical practitioners' control, it is their duty to use the systems responsibly and comply with all the security protocols in place.
(4) There should be no access to confidential patient information unless the medical practitioner is involved in the patient's care.
(5) If patients' request withholding of information from those involved in their care, appropriate advice should be provided to the patients on possible adverse consequences of doing so. If they insist, such request may be acceded to unless disclosure is necessary to prevent harm to the patients, other healthcare professionals or the public.

Annex F – Scenarios and further guidance to illustrate appropriate access to NEHR

Scenario B: Authorised Access to NEHR

Doctor X in Hospital A refers his/her patient to Institution B for care and would like to access the patient's records in the NEHR to check if the patient had in fact consulted Institution B, and review the patient's status, findings and outcomes for proper continuity of care for the patient ahead of future appointments.

Professional Guidance:
Access to NEHR for such patient-care purposes is considered appropriate. Where possible, Dr X should also inform his patient that he may be accessing NEHR to aid him in following up from the care plans instructed by Institution B.

Scenario C: Unauthorised Access to NEHR

Patient A underwent surgery in Hospital X and later suffered from post-operation complications. NEHR was subsequently accessed to inform a clinical quality audit investigating the root cause of Patient A's complications.

Professional Guidance:
Access to NEHR for such clinical quality audit purposes is prohibited. Hospital X should use the information contained in its EMR, and not the NEHR, for the clinical quality audit.

MOH considers access to and use of the NEHR in the following (non-exhaustive) circumstances to be inappropriate:

a. Users accessing data of patients not assigned to their care within their institution.
b. Users accessing data of patients not under the care of the users' institution (e.g., a patient who is not registered with the institution);
c. Users accessing patient data for research purposes without MOH's prior consent; and
d. Users accessing patient data for clinical audits, teaching or training purposes.

Scenario D: Unauthorised Access to NEHR

Patient A is registered with Hospital Y and is a friend of Doctor B who works in the same hospital. Doctor B was approached by Patient A with queries about his medical condition.

Professional Guidance:
Doctor B should not access the records of Patient A in the NEHR if he was not part of the team providing direct care for Patient A, and may instead advise Patient A to make an appointment for a proper consultation with Doctor B.

MOH considers access to and use of the NEHR in the following (non-exhaustive) circumstances to be inappropriate:

a. Users accessing data of patients not assigned to their care within their institution.
b. Users accessing data of patients not under the care of the users' institution

(e.g., a patient who is not registered with the institution);
c. Users accessing patient data for research purposes without MOH's prior consent; and
d. Users accessing patient data for clinical audits, teaching or training purposes.

Scenario E: Appropriate Documentation of Access to NEHR

Dr X, a specialist doctor, receives a referral letter from a GP to seek their opinion on Patient A's care. In order to determine if Dr X has the capabilities to review Patient A's case, Dr X sets out to seek further information on Patient A via NEHR. After reviewing the records on NEHR, Dr X determines that they are unable to review the Patient and would prefer to refer them to another specialist Dr. Dr X proceeds to document that they had received the referral, reviewed Patient A's medical records on NEHR and determined that it is best for Patient A to be referred to another doctor.

Professional Guidance:
Access to NEHR was appropriate. Healthcare professionals should document, where appropriate, their access to NEHR for patient-care related purposes.

- In such a scenario, the healthcare professional should document that they had accessed NEHR for the purpose of triaging the patient and determining whether this patient is suitable for their care, regardless of whether the patient was seen by the healthcare professional or not.

Scenario F: Appropriate Documentation of Access to NEHR

Nursing Home X received a patient referral from Hospital Y. Nursing Home X requires more information from NEHR to assess the patient's suitability for admission to the nursing home.

Professional Guidance:
Nursing Home X should firstly pre-register the patient before accessing NEHR to assess the patients' suitability for admission to the Nursing Home. Nursing Home X should subsequently document their reason for access to NEHR, as well as the outcome of their assessment.

Annex G – Clinical Evaluation of Patients

Clinical Evaluation of Patients [Section A2 of the ECEG]

Medical practitioners must ensure that they have sufficient information about their patients, derived from good history-taking, adequate clinical examination and other relevant investigations or information sources, before they offer any clinical opinion, make management plans or offer treatment.

Annex H – Scenarios to illustrate appropriate use of NEHR.

Scenario G: Relying on professional judgement to determine if access to NEHR is required.

Patient A visits his GP for a common cold. The GP did not deem it necessary to review NEHR in his management of this common ailment. Since he did not consult NEHR, the GP missed out on the patient's multiple previous admissions to the

hospital for recurrent asthma exacerbation. The GP's clinical decision was made without this pertinent information that could have changed the course of treatment.

Professional Guidance:
Healthcare professionals should depend on their own professional judgement to assess whether there is a need to consult NEHR as a complement to history taking and physical examination for the purposes of patient care.

- General Practitioner ("GP")'s obligation to consult NEHR can be determined by the factors of consideration as discussed in the earlier section of the guideline:
    - The first consideration is whether the GP is satisfied that appropriate and sufficient history taking and physical examination have been undertaken to make clinical assessment. If the GP had taken a focussed history, he should have uncovered patient's history of asthma and recurrent admissions for asthma exacerbation. If GP had done a physical examination, a wheeze might be detected on lung examination indicating possible asthma exacerbation. If GP feels that the history-taking and physical examination did not reveal enough information to explain the clinical presentation, GP should complement them by consulting NEHR.
    - Another consideration is whether the patient is a reliable historian. If the GP assesses that the patient has a condition that makes it difficult for the patient to be clear about his medical history or if patient admits that he is unsure about his past medical history, the GP should consult NEHR to clarify the history.
    - In order to obtain the relevant information, the GP should focus the use of NEHR on the patient's respiratory condition. In that way, there should be no need for GP to perform general review of all Health Information on the patient in NEHR.

Scenario H: Relying on professional judgement to determine if access to NEHR is required.

Patient X, an 18-year-old male consulted his GP for a sore throat and dry cough he had been experiencing for a day. The GP took the necessary history, determined that the patient had no past history of note, and conducted an examination before diagnosing the patient with an acute upper respiratory tract infection and prescribing the patient with the required medication and medical certificate. The GP did not access NEHR during this patient consultation.

Professional Guidance:
Healthcare professionals should assess whether there is a need to consult NEHR as a complement to history taking and physical examination for the purposes of patient care.

- GP's obligation to consult NEHR can be determined by the factors of consideration as discussed in the earlier scenario.
- The key consideration is whether the GP is satisfied that adequate and sufficient relevant information has been obtained from the patient to constitute good history-taking. This would include information relating to drug allergy and past medical history. In the event of doubt as to the adequacy and sufficiency of the information obtained, the GP should consider using NEHR.

Scenario E: Reviewing and Clarifying Information on NEHR prior to use.

Doctor X had copied and pasted patient's last known medical history from NEHR while pre-clerking patient in ED. This was based on information from a discharge summary contributed to NEHR from 10 years ago, and the information was not up to date. Due to a busy workload, Doctor X had not verified the past medical history with the patient which subsequently led to incomplete assessment of the patient, and poor treatment decisions.

Professional Guidance:
Healthcare professionals should take reasonable steps to clarify and review Health Information obtained from NEHR prior to relying on the said information for clinical purposes. -

- NEHR should not be a substitute for exercising clinical skills and judgement for good history-taking. The healthcare provider should perform targeted verification of the Health Information concerning the patient's past medical history. For instance, if he decides to prescribe chronic medications documented in the discharge summary 10 years ago, he should minimally perform a targeted search for other clinical notes over the last 10 years or patient's most recent medication records in NEHR. Healthcare professionals should avoid copying and pasting past medical history drawn from past medical records without verifying the information afresh with patients.

Scenario I: Relying on professional judgement to determine if incidental findings need to be followed up on.

Patient attends GP for flu like symptoms. GP decides to review NEHR for past clinical reviews and notes that earlier in the year patient had undergone CT Chest which show incidental thyroid nodules.

Professional Guidance:
Healthcare professionals should assess whether any follow-up is required for incidental findings discovered through using NEHR.

- The GP should inform the patient of the finding and establish what the patient knows about the finding and where necessary, to correlate the CT chest findings of incidental thyroid nodules with patient's symptoms and physical findings. Subsequently, if still concerning, GP should either pursue further investigations or refer patient to a specialist doctor for further management.
- Even prior to the enactment of HIA and the introduction of NEHR, incidental findings from advanced imaging tools have been on the rise. Healthcare professionals have been advised to order investigations only if clinically indicated. In the situation where advanced imaging or diagnostic does indeed reveal incidental findings and it can be viewed on NEHR, the approach should be no different from what it was prior to HIA and NEHR.

Scenario J: Relying on professional judgement to determine if access to NEHR is required

Patient A was referred for gastroscopy after presenting with new complaints of persistent abdominal pain associated with nausea. Dr X asked if Patient A was on

anticoagulation. Patient A replied "No I am not". Dr X did not review the patient's medication list and proceeded with the gastroscopy. However, patient was on anticoagulation for previous stroke.
Dr X found a normal stomach on gastroscopy and documented in NEHR the findings of gastroscopy and discharged the patient. Patient was subsequently admitted with melena as a result of the procedure.

Professional Guidance:
Healthcare professionals are expected to use their own professional judgement to assess whether there is a reasonable requirement to access NEHR as a complement to history taking and physical examination for the purposes of patient care.

- Specialist doctor's obligation to consult NEHR can be determined by the factors as discussed in the earlier scenarios.
    - In this case, the Specialist Doctor obtained a clear and unequivocal response from the patient when asked whether he was on anticoagulation. Unless the Specialist Doctor has reasons to doubt the patient's response, there should be no need to consult NEHR to reconfirm the patient's clear response.
    - However, if the patient's clear and unequivocal response is not consistent with other information elicited from the patient as well as through clinical examination, then the Specialist Doctor may wish to consult NEHR for further information.
    - If the Specialist Doctor is of the view that the patient is not a reliable historian or has reason to suspect that the patient may not be in a position to provide an accurate response, then the Specialist Doctor should consider consulting NEHR.
    - Targeted consult of NEHR. While it is not mandatory for healthcare professionals to consult NEHR for every single patient, there might be a need in appropriate circumstances to access NEHR. This expectation might change as medical practise evolves.
    - *Tip*: It is noteworthy that it takes less than 1-2 minutes to check NEHR for chronic medications like anticoagulation through the search bar in the main NEHR interface.

Scenario H: Working collaboratively to correct medical record inaccuracies.

Patient A visits Dr X for what appears to be a presentation of an acute allergic reaction. Dr X is unable to elicit a clear history from Patient A and accesses NEHR for further information on Patient A's allergy history and any past presentations of allergic reactions. He notes that Dr Y, the patients' primary physician, had recorded on NEHR that the patient has no known drug allergies. After stabilising the patient and eliciting a history of the events leading up to the presentation from their next of kin, it is determined that the patient is possibly allergic to Panadol. Dr X promptly arranges for an allergy clinic appointment for the patient and updates NEHR with this latest information.

Professional Guidance
Healthcare professionals should work collaboratively to update and correct medical records through the use of NEHR where possible.

In the process of updating the patients' medical records with the accurate allergy history, Dr X could also update Dr Y about this new medical information as he is the patients' primary care physician and this information may impact the patients' care plans.