COMMONWEALTH OF VIRGINIA
Office of the State Inspector General

Michael C. Westfall, CPA
State Inspector General

P.O. Box 1151
Richmond, VA 23218

Telephone 804-625-3255
Fax 804-786-2341
www.osig.virginia.gov

March 16, 2021

The Honorable Ralph Northam
Governor of Virginia
P.O. Box 1475
Richmond, VA 23219

RE: Mortality Review January 1, 2018 – June 30, 2019

Dear Governor Northam:

The Office of the State Inspector General (OSIG) conducted a review of patient deaths in facilities operated by the Virginia Department of Behavioral Health and Developmental Services (DBHDS). The goal of this review was to identify opportunities for active prevention of patient deaths through risk reduction and mitigation.

Background

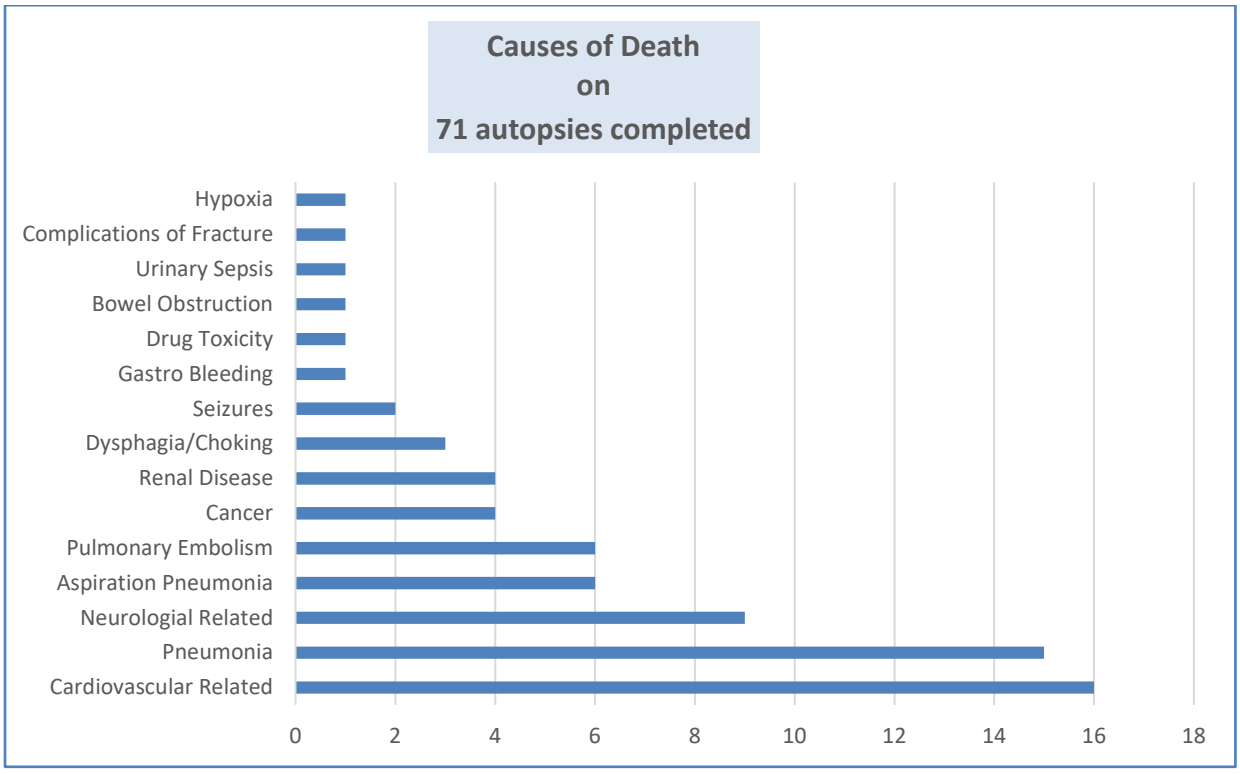
DBHDS operates 13 facilities across the Commonwealth of Virginia: eight behavioral health facilities for adults, two training centers (one of which closed in fiscal year 2020), a psychiatric facility for children and adolescents, a medical center and a center for behavioral health rehabilitation. State facilities provide highly structured, intensive services for individuals with mental illness, developmental disabilities or who are in need of substance use disorder services.

As mandated by *Code of Virginia* § 2.2-309.1(1), OSIG will, "Provide inspections of and make policy and operational recommendations for state facilities and for providers, including licensed mental health treatment units in state correctional facilities in order to prevent problems, abuses, and deficiencies in and improve the effectiveness of their programs and services."

As part of its oversight and as outlined in its Fiscal Year 2021 Annual Work Plan, OSIG identified DBHDS patient deaths as an area to evaluate. On July 27, 2020, OSIG issued a report on the findings of a review of DBHDS departmental instructions (DI) and facility policies and

procedures pertaining to mortality review. This report differs from the previous report because it focuses more on patient-specific issues identified during the review of individual patient records.

As part of the mortality review process, OSIG requested autopsy reports for 95 patients; however, autopsies were not completed on 24 of those patients. Below is a graph that documents the causes of death according to the autopsies.



Scope

OSIG requested 45-Day Death summaries and autopsies (if completed) from all 13 facilities for 95 patients, whose deaths occurred between January 1, 2018, and June 30, 2019. The following is a breakdown by facility:

Facility Name	Facility Abbreviation	Number of Patient Deaths Reviewed
Hospitals		
Catawba Hospital	CAT	16
Central State Hospital	CSH	2
Commonwealth Center for Children/Adolescents	CCCA	0
Eastern State Hospital	ESH	22
Hiram Davis Medical Center	HDMC	12
Northern Virginia Mental Health Institute	NVMHI	4

Piedmont Geriatric Hospital	PGH	13
Southern Virginia Mental Health Institute	SVMHI	1
Southwestern Virginia Mental Health Institute	SWVMHI	10
Virginia Center for Behavioral Rehabilitation	VCBR	2
Western State Hospital	WSH	1
Training Centers		
Central Virginia Training Center	CVTC	9
Southeastern Virginia Training Center	SEVTC	3
TOTAL		**95**

Review Methodology

OSIG reviewed 45-Day Death summaries and/or other supporting documentation as provided and reviewed autopsies for 71 patients. OSIG performed three on-site record reviews and seven desk reviews of documentation. OSIG asked follow-up questions post-review of 10 facilities: CAT, CSH, CVTC, ESH, HDMC, PGH, SEVTC, SVMHI, SWVMHI and WSH. OSIG also requested additional resources from DBHDS Central Office, including DI 315 - Reporting and Reviewing Unexpected Deaths.

In response to OSIG's follow-up questions, ESH sent these additional resources for review:

- ESH 54 - Instructions for Vital Signs
- ESH Infection Prevention- Dressing Change Technique
- ESH Nursing Services Procedure 280F - Automated 24 Hour Nursing Report
- ESH Nursing Services Procedure 280Y - Registered Nurse Documentation
- ESH Patient Care Manual - Vital Signs, Blood Pressure
- ESH Patient Care Manual - Vital Signs, Peripheral Pulse and Respiration
- ESH Patient Care Manual - Skin Care, Incontinence
- ESH Patient Care Manual - Skin Care, Dressings, Pressure Ulcers
- ESH Patient Care Manual - Vital Signs, Pulse Deficit, the Apical-Radial Pulse
- ESH Policy 280-036 - Nursing Documentation
- ESH Policy 500-001 - Dysphagia Protocol

FINDINGS/RECOMMENDATIONS –DBHDS FACILITIES

Based on this review, OSIG presents the following findings and recommendations for DBHDS consideration.

FINDING #1 – CAT

Upon review of patient records from CAT, OSIG discovered a report on January 14, 2019, of a 97-year-old patient whose undergarments had blood in them. The source of blood was unclear during examination. The finding was documented and reported to the physician. The patient was treated empirically for a urinary tract infection because she was not a candidate for urinary catheterization. The documentation did not indicate whether trauma had been considered as a source of the blood. Without documentation to confirm that trauma was considered as a source of

blood in the patient's undergarments, the possibility of abuse might go undetected and unreported.

RECOMMENDATION #1 – CAT

Ensure that documentation of examination findings such as (e.g. blood in undergarments, bruising, lacerations and/or injuries) reflect that staff considered trauma as a potential cause and was or was not ruled out. This consideration is especially important for patients that are elderly, intellectually disabled, diagnosed with dementia or non-communicative.

FINDING #2 – ESH

Upon on-site review of patient records at ESH, OSIG discovered documentation missing in a patient's medical record. The record included a note from February 1, 2019, that indicated there were no medical concerns at that time; however, a note from February 8, 2019, indicated a definite status change, which led to a rapid decline and death on February 10, 2019. Notes were missing from February 2 – 6, 2019, which could have indicated the oncoming status change in the patient's condition.

ESH was unable to provide the missing notes due to the facility's documentation process of "charting by exception." According to Policy 280-036, Nursing Documentation, charting by exception includes the following:

1) "An interdisciplinary (ID) note is created when there is a change in the patient's condition.
2) A progress note is completed by a licensed practical nurse (LPN) detailing the time the patient was seen by the nurse and physician, the reason for the incident, a summary of the patient's overall condition and related nursing actions taken to prevent recurrence.
3) A behavioral and medical early warning sign(s) (BMEWS) is documented in a medical emergency or critical medical event. The BMEWS is an instrument employed by staff to identify behavioral or physical parameter changes."

This patient had co-morbidities that would have warranted more frequent documentation; therefore, notes should have been completed for the missing dates. Without consistent documentation, it is difficult to establish a normal baseline for patients and to identify changes in status, thereby increasing the patient's risk for an adverse medical outcome.

RECOMMENDATION #2 – ESH

Require more frequent documentation that outlines the normal baseline of the patient and status changes, especially in patients with co-morbidities. Documentation reflecting both normal and abnormal conditions of the patient will alert staff to ensure medical intervention is administered timely, when necessary.

FINDING #3 – ESH

A. Upon on-site review of patient records at ESH, OSIG discovered documentation missing in a patient's medical record. A note from November 9, 2018, indicated an abnormal diagnostic test and that the patient was experiencing symptoms of respiratory distress. Staff recorded that the physician advised them to send the patient to the emergency room if the patient decompensated (condition deteriorated). A note from November 12, 2018, indicated there were increased concerns due to the respiratory distress that resulted in cardiac arrest. The patient was then transported to the emergency room, and later expired. There were no notes for November 10 - 11, 2018, to indicate the decline in the patient's status. ESH informed OSIG that it could not provide the missing documentation because its electronic health record (EHR) system was not working during this timeframe; however, that statement was later retracted, as there was no EHR at the facility at that time.

   Without consistent documentation to show a normal baseline and any changes in patient status, it is difficult to determine the patient's condition and the need for medical intervention. This is especially important if the patient has already shown signs of status decline; therefore, medical intervention might not be sought to mitigate risk or prevent death.

B. According to ESH Mortality Review Committee (MRC) minutes, the BMEWS were also missing from the patient record. ESH was not able to provide OSIG with the BMEWS for this patient, as it is not considered an official part of the medical record.

   Including all documentation of changes in a patient's condition into the medical record is imperative to alert staff to the possibility of needed medical intervention, especially when notes are missing from the record. Failure to mitigate risk may occur if there is not adequate documentation to identify a change in the patient's medical and behavioral condition.

C. In lieu of the BMEWS, OSIG was provided with a Patient Care Observation Record for this patient. This form reflects the activities of daily living performed by staff and the patient and is also a record of bowel movements and bladder use.

   This form is not an adequate stand-alone indicator of a patient's status change in lieu of the BMEWS. OSIG was only provided with page 1 of 2, and the form was not complete. A lack of adequate documentation to indicate a change in a patient's condition may prevent risks from being properly identified and mitigated.

D. According to documentation reviewed on-site, staff did not send the patient for emergency intervention for "decompensation" until November 12, 2018, even though the patient displayed signs of respiratory distress three days prior. Staff noted on November

9, 2018, that the patient was short of breath and in moderate respiratory distress. It was documented that on November 12, 2018, at 10:30 a.m. the patient's labored breathing intensified and vitals declined. The patient went into cardiac arrest at 11:50 a.m. and expired at the hospital at 12:30 p.m.

According to ESH, the reason for the delay in seeking emergency intervention for this patient, despite signs of respiratory distress, was that staff had monitored the patient closely and the patient had shown signs of clinical improvement. However, it was determined by OSIG's review of the medical record that because of missing documentation, there is no adequate documentation to support an upward trend in this patient's condition.

RECOMMENDATION #3 – ESH

A. Ensure staff are trained on appropriate documentation of medical records. Perform a quality assurance audit of records at regular intervals to ensure staff documentation is adequate.
B. Ensure that all assessment tools such as the BMEWS be included as an official part of the medical record. This record could serve as part of evidentiary documentation to support status changes in patients.
C. Ensure that all flow sheets are filled out completely and accurately in patient records and used in conjunction with other assessment tools and nursing notes to support evidence of care provided to patients. Collectively, this documentation should demonstrate changes in patient care.
D. Provide training on the importance of documentation. When a patient is showing signs of deteriorating medical status or decompensation, the frequency of documentation should also increase to ensure the patient is monitored adequately to ensure timely medical intervention is sought.

FINDING #4 – ESH

Upon on-site review of patient medical records at ESH, OSIG discovered one record where the facility did not follow its protocol for recording vital signs. There were no vital signs recorded for this patient for four-and-a-half months. According to the record, staff recorded vital signs on September 24, 2018, and not again until February 8, 2019, at which time the patient's temperature was 100.1 and oxygen saturation was 84 percent. The hospital admitted the patient on February 8, 2019, with a diagnosis of pneumonia, and the patient expired two days later.

Per ESH 54 - *Instructions for Vital Signs*, staff should take and record a patient's vital signs at least monthly or more frequently if indicated. According to the facility, there were no clinical signs prior to the date of death indicating the patient had a fever. However, review of the patient's clinical indicators was not possible since staff did not record vital signs in accordance

with ESH 54. Notes were missing from February 2-6, 2019, prior to the patient's admission for pneumonia.

A change in a patient's condition may go undetected when staff does not establish a normal baseline by recording vital signs at regular intervals, as directed by policy. A change in a patient's vital signs could be indicative of a change in condition, warranting further assessment or medical intervention. Vital signs are an important assessment tool and could help alert staff to potential medical abnormalities, which may need to be addressed.

RECOMMENDATION #4 – ESH

ESH administration must ensure that direct care staff remain in compliance with all facility policies, procedures and instructions. Specifically, staff must record patient vital signs in accordance with ESH 54 - *Instructions for Vital Signs* at least monthly or more frequently as indicated. Additionally, if there are symptoms indicative of a status change (i.e., cough, urinary frequency, etc.), vital signs should be taken and recorded more frequently and the physician should be notified of status change.

FINDING #5 – ESH

During the on-site review at ESH, OSIG discovered a patient record that did not include documentation confirming a pulmonary consultation for consideration of a thoracentesis had been scheduled and completed, as ordered by the physician.

ESH was unable to provide the correct documentation to verify that this order was implemented and the consultation was done. With abnormalities on the patient's chest x-ray, this consultation could have been significant in the treatment of this patient. The autopsy indicated the cause of death was complications of chronic obstructive pulmonary disease with congestive heart failure contributing.

RECOMMENDATION #5 – ESH

A. Implement a quality assurance process to ensure that staff completes all physician orders timely, including consultation appointments.
B. Establish a quality assurance process to follow up on consultation results, ensuring that consults were completed.

FINDING #6 – ESH

During the review of ESH patient records, OSIG discovered two patients with choking/aspiration as the cause of death. ESH MRC minutes from March 20, 2019, stated, "Initial review of charts CY 2018 on patients with an aspiration diagnosis indicates seven patients requiring hospitalization; five of which were death related. Review of documentation continues. This will also be addressed in the Root Cause Analysis Meeting."

Patient 1 - Record Reviewed by OSIG

A. During the record review, OSIG determined the following:
   - The triage assessment did not indicate the patient was a choking risk.
   - Documentation did not indicate if the staff cut the bread the patient was eating at the time of the incident into bite size pieces, according to dietary restrictions.
   - Documentation did not indicate if staff was monitoring the patient's snacks for choking precautions according to the ESH Policy 500-001- *Dysphagia Protocol.*

Without adequate documentation, including the points mentioned above, staff would be unable to ensure that appropriate dietary restrictions for a patient at risk of choking are being followed, therefore placing the patient at an increased risk for choking/aspiration.

B. During the record review, OSIG also determined the following:
   - Patient's significant weight loss was not included in the medical problem list.
   - Patient's significant weight loss was not addressed in the treatment plan.

Significant weight loss can be an indicator for abnormalities that may require or benefit from medical treatment and/or intervention. If these concerns are not addressed timely, abnormal conditions will ensue and potentially increase in seriousness.

Patient 2 - Record Reviewed by OSIG

Upon review of the medical record, OSIG discovered the following documentation:

1/23/19 (6 p.m.)	"Audible gurgling. Thick mucus in back of throat. Received suction order. Suctioned and mucous removed. Asked for water; suctioned again. Gurgling again. Immediately suctioned water back out. Dysphagia Screening ordered. Chest x-ray ordered for a.m. By mouth meds not given due to difficulty swallowing."
1/24/19 (4:15 p.m.)	"Role out (should have been rule out) aspiration pneumonia. Staff witnessed excessive coughing and possible aspiration of non-productive cough. Chest x-ray ordered."
1/26/19 (7:20 a.m.)	"Sitting at table being fed by 1:1 staff."
1/27/19 (5:23 p.m.)	"Patient unresponsive with sudden decline in status. Patient lethargic. Blood pressure unable to be obtained. No response to suctioning. Patient transported to Emergency Room."
1/30/19 (4:07 a.m.)	"Patient expired at hospital."

Except for January 26, 2019, notes do not document when and what staff fed the patient. The autopsy indicates the cause of death is complications of food aspiration.

Failure to properly document a patient's feedings and response could prevent staff from being alerted to potential choking/aspiration concerns.

According to ESH MRC minutes, a code medic alert was not initiated; however, according to ESH, nursing notified the physician, who arrived quickly and ordered transfer of the patient to the emergency room. The notes also indicated that the emergency room physician placed the patient on a do not resuscitate (DNR) order after speaking with the family.

RECOMMENDATION #6 – ESH

Facility administration should ensure the following:

A. Identify documentation of all risks adequately on admission assessments and any assessments thereafter.
B. Include documentation of implementation of dietary restrictions and the patient's response in the medical record.
C. Conduct a quality assurance review to ensure the documentation is adequate and significant fluctuations in weight have been addressed. ESH reported staff were trained on the importance of recognition and documentation of weight loss.
D. Initiate emergency medical procedures immediately if choking is due to an obstructed airway. Staff should also report potential choking/aspiration signs (i.e., coughing while eating) to the physician immediately.

FINDING #7 – ESH

During the review of ESH records, OSIG discovered a 45-Day Death Summary with documented concerns of a patient aspirating from vomitus. The patient experienced several "syncopal episodes," an altered mental status, and became uncommunicative. This resulted in the patient being admitted to the hospital, where six days later the patient expired. The Medical Examiner determined the cause of death was Respiratory Failure due to a Cerebrovascular Accident (Stroke).

Due to the lack of documentation during the patient's decline in status, OSIG inquired about the concern of aspiration from vomitus and if the patient had been turned frequently and repositioned as part of the prevention technique described for patients at risk in the ESH Policy 500-001 *Dysphagia Protocol*. ESH was unable to provide documentation to indicate if staff followed the protocol and therefore, it is unclear what position the patient was in when he aspirated the vomitus.

Patients suffering from immobility or an altered mental status, left in a supine position, can be at risk for choking/aspiration if they are not turned and repositioned as needed.

RECOMMENDATION #7 – ESH

A. Ensure staff follow ESH Policy 500-001 *Dysphagia Protocol*, when patients are immobile or have an altered mental status.

B. Ensure that staff are adequately documenting each patient's status when there is a decline.

FINDING #8 – ESH

During review of ESH records, OSIG discovered that a patient was presenting with the signs listed below. The cause of death listed on the autopsy was a cerebrovascular accident (stroke). OSIG inquired about a Stroke Assessment being performed due to the presentation of these symptoms, however one was not completed.

- 10-pound weight loss in a week.
- Lethargic.
- Unintelligible speech.
- Difficulty swallowing.
- Slurred speech.
- Incontinent.
- Drooling.
- Pocketing food.

RECOMMENDATION #8 – ESH

Ensure that all staff are trained to recognize abnormal signs that could be an indicator of a more serious condition that could warrant immediate medical intervention. Some examples of those conditions are:

- Stroke.
- Pressure sores.
- Aspiration pneumonia.
- Falls.
- Dehydration.
- Bowel obstruction.
- Sepsis/UTI.
- Seizures.

While OSIG recognizes that staff are not trained to make medical judgements or diagnoses, they should at least have the knowledge to alert the charge nurse and/or physician of possible abnormalities in the patient's condition. Any of these conditions, if left untreated, could cause harm to the patient or even death.

FINDING #9 – SVMHI

During the review of SVMHI records, OSIG discovered that SVMHI failed to schedule a cardiology consultation as recommended. According to the autopsy report, the patient's "cause of death was pulmonary thromboembolism due to deep vein thrombosis with hypertensive cardiomegaly contributing."

According to SVMHI, the family nurse practitioner that recommended the consultation failed to enter the order into the system; therefore, the nurse was not prompted to schedule the consultation.

Physician orders that are not implemented and followed can be detrimental to a patient's treatment.

RECOMMENDATION #9 – SVMHI

Implement the following:

A. Provide training for physicians and practitioners on the procedure for entering orders into the system.
B. Execute quality assurance reviews to ensure all orders are entered and implemented timely and accurately.
C. Have physicians and practitioners follow-up on consultation results to ensure the consultations were completed as ordered.

FINDING #10 – SVMHI

According to the MRC minutes, a patient's status changed during the night (restless, heavy breathing, attempting to cool down in front of the air conditioning unit). The LPN was informed of the changes in the patient's condition, but was functioning in a different capacity that night and did not check on the patient or report the change in status to the physician. The LPN failed to report the patient's status change to the Registered Nurse (RN) or the physician on duty.

Regardless of the acting role of a nurse, a change in a patient's condition (especially rapid decline) should always be reported to the nurse in charge and physician on duty. Lack of reporting status changes could prevent risks from being identified and mitigated timely.

RECOMMENDATION #10 – SVMHI

Implement the following:

A. Train nursing staff on timely reporting of status changes to the charge nurse and/or physician on duty.
B. Train staff on adequate documentation of status changes, reporting and interventions taken in the patient record.

FINDING #11 – WSH

A. During a review of WSH records, OSIG discovered that the venous thromboembolism (VTE) assessment process in the OneMind electronic health record system failed, causing a risk of VTE to be overlooked with no action taken. This prevented the possibility of treatment to commence for a 47-year old patient. The patient's cause of death was acute pulmonary thromboembolism. The patient's risk factors included the following:

- Immobility.
- Catatonic behavior.
- Food refusal.
- Fluid refusal.

WSH was one of three facilities (SVMHI, SWVMHI) that previously used the OneMind system. Within the OneMind system, a VTE assessment was completed for patients upon admission to WSH. A trigger threshold was set to produce an automatic alert for positive scores for VTE risk. If the trigger threshold is not met, no alert is produced.

This patient's VTE score of eight should have indicated the patient was high risk. Due to an error in the system, the patient did not receive prophylaxis to prevent thromboembolism. The lack of preventative treatment can cause imminent death.

Upon reviewing the medical record and the Sentinel Event Report, OSIG requested an impact study to determine if any other patients were affected by this error in the system. It was discovered that the trigger threshold had been defective and incorrectly set to "no" (indicating not at high risk). The threshold was then lowered from a score of eight to six. Lowering the threshold was intended to identify more patients as being at high risk for VTE. However, the malfunction resulted in producing false negative screening results, meaning no alert was generated when it should have been since the trigger threshold was met.

DBHDS Impact study as requested by OSIG

WSH	19 VTE assessments conducted on 17 patients	One false positive indicated high risk for VTE. Manual score not consistent with that finding. On anti-coagulation medication, prophylactic device.	Seven false negatives indicated not high risk. Manual score above threshold, six additional interventions taken.	One experienced sentinel event, prompting OSIG to request this study.
SWVMHI	Five VTE assessments conducted.	One false positive indicated high risk for VTE. Manual score not consistent with finding. On anti-coagulation medication, prophylactic device.	Two false negatives Indicating not high risk. Manual score above threshold. Additional interventions taken.	

Impact study conclusion: There was one individual in which the outcome may have changed if the VTE assessment tool malfunction did not occur. Given the VTE assessment tool was used 24 times in two facilities with 11 instances of a malfunction, direct causation of the sentinel event due to the malfunction cannot be established. The study also found that:

- The team failed to address the risk manually and therefore the patient was not given appropriate prophylaxis. The score was not communicated to the team appropriately. Despite the malfunction of the electronic system, the elevated score still should have been communicated to the team to ensure treatment commenced.
- The policies vary among facilities regarding the use of a VTE assessment on admission or during status changes that could increase the patient's risk of VTE.

SVMHI does not have a policy to do a VTE assessment on admission. Facilities should have similar policies with regard to patient care and those policies should be based on a Central Office DI.

WSH informed OSIG during an on-site visit that OneMind is no longer being used for VTE assessments and that it is implementing a new system.

RECOMMENDATION #11 – WSH

Ensure the following:

A. Quality assurance is periodically performed on the new system to ensure scores are accurate and risk is identified appropriately.
B. Quality assurance is done to ensure VTE scores are being communicated appropriately to the team and patients who need prophylactic treatment are receiving it.

FINDING # 12 – WSH

Upon review of a WSH medical record, OSIG determined that according to the Sentinel Event Report, medical staff were not comfortable with prescribing prophylaxis for blood clot risk. Psychiatrists do not encounter the need to provide direct medical treatment. It is further understood that some members of the medical staff are not accustomed to contacting the medical backup for assistance.

While OSIG acknowledges psychiatrists' reluctance to treat complex medical needs, the psychiatrist or other team member should contact the medical physician on duty to assess and address those needs. If a patient's complex medical needs go untreated, risk will not be mitigated, which could result in severe harm or even death.

RECOMMENDATION #12 – WSH

Ensure that staff are trained on the importance of utilizing medical back up when needed to address complex medical issues.

On behalf of OSIG, I would like to express our appreciation to DBHDS Commissioner Alison Land, her staff at Central Office and facility directors for their cooperation during this review.

Respectfully,

3/22/2021

X Michael C. Westfall

Michael C. Westfall, CPA
State Inspector General
Signed by: Westfall Michael wzg39453

cc: The Honorable Clark Mercer, Chief of Staff to Governor Northam
The Honorable Daniel Carey, M.D., Secretary of Health and Human Resources
The Honorable Delegate Patrick A. Hope, Chair, Joint Commission on Health Care
The Honorable Senator George L. Barker, Vice Chair, Joint Commission on Health Care
Alison Land, Commissioner, DBHDS
Heidi Dix, Deputy Commissioner, Quality Management and Government Relations, DBHDS
Angela Harvell, Deputy Commissioner, Facilities, DBHDS
Alvie Edwards, Assistant Commissioner for Compliance, Risk Management and Audit, DBHDS