PURPOSE: The Vitek 2 *Neisseria-Haemophilus* identification card (NH) is intended for use with the Vitek 2 System for the automated identification of most clinically significant fastidious organisms including *Neisseria* species and *Haemophilus* species. Identification is based on the results of established biochemical tests and newly developed substrates that measure carbon source utilization and enzymatic activities. Results are available in approximately 6 hours.

SAMPLE INFORMATION:

Type	Fastidious Gram-negative organisms
Source	18-24 hour culture

REAGENTS and/or MEDIA:

Type	Vitek 2 NH Identification card
Source	bioMerieux
Volume	1 card
Stability	Stable until date of expiration indicated on the container
Storage Requirements	Store at 2-8°C
Criteria for rejection and follow up action	Do not use if: • The expiration date has passed. • There are other signs of deterioration.

SUPPLIES:

- DensiCHEK plus
- Sterile saline (0.45%) and dispensette
- Sterile swabs or sticks
- Vortex
- bioMerieux polystyrene tubes and caps
- Smart Carrier Station and cassettes
- Vitek 2 instrument
- Disposables: saline and tubing, pipette tips

SPECIAL SAFETY PRECAUTIONS:

Containment Level 2 facilities, equipment, and operational practices for work involving infectious or potentially infectious materials or cultures.

- Lab gown must be worn when performing activities with potential pathogens.
- Gloves must be worn when direct skin contact with infected materials is unavoidable.
- Eye protection must be used where there is a known or potential risk of exposure to splashes.
- All procedures that may produce aerosols, or involve high concentrations or large volumes should be conducted in a biological safety cabinet (BSC).
- The use of needles, syringes, and other sharp objects should be strictly limited.

All patient specimens are assumed to be potentially infectious. Universal precautions must be followed. Since viable micro-organisms are used, all cultures must be handled with appropriate precautions. All equipment in contact with cultures should be decontaminated by appropriate methods

QUALITY CONTROL:

- Refer to MIC60030 – Vitek 2 Quality Control for Vitek 2 QC procedures.
- Record all Vitek 2 QC results on MIC60032 – Vitek 2 Quality Control Results Record.

PROCEDURE INSTRUCTIONS:

Step	Action
Setting up NH identification card on Vitek 2	
1	At the SMART CARRIER STATION (SCS) • Ensure that Smart Carrier Station is on. • Place cassette on the Smart Carrier Station. Message appears: "Cassette has been processed. Press F1 to erase, any other key to display processed information". Press F1 to erase cassette memory. • Cassette ID is SCS and Tech ID is HAWK. At Bench ID type in bench you are working on: urine, wound, QC or testing. • At Lab ID: scan or type in the isolate's barcode number. • At Card Type: scan in Vitek 2 card barcode. • If isolate is NOT #1, arrow up to change Iso: to correct isolate number.
2	Allow cards to come to room temperature before opening the package liner.
3	Select isolated colonies from a primary isolation plate and inoculate tube to obtain a **2.70 – 3.30 McFarland** concentration. Use fresh 18-72 hour cultures.
4	Cap tube and vortex. If suspension is too heavy, dispense saline into an extra tube to use as a diluent. Do NOT dilute bacterial suspensions directly from the dispensette. If suspension is too light, add more colonies from the plate. Remove cap from tube.
For NH Card	
5	Place tube with 3 mL saline in first slot.
6	Scan or type in lab accession barcode number.
7	Scan NH card and place into first slot with blue stick pointing up.
8	If more than one isolate is worked up on the same accession number use arrow key (button with four arrows) to go to Iso: window to change isolate number.
9	Press F3 to see list of specimens loaded onto the cassette. Using this list, set up **2.70 – 3.30 McFarland** concentration in first tube and place blue stick into tube.
10	Repeat steps until carrier is full or until all isolates have been processed.

LOADING THE CARDS:

Step	Action
Loading NH ID card onto Vitek 2	
1	Check that the green Cassette Load Station light is on. A blinking light indicates that a cassette must be unloaded before loading a new cassette. If the light is off, the instrument is not ready to accept a cassette. Wait for the green light.
2	To avoid jams and terminated cards, check that: 1. The blue sticks are inside tubes. 2. The caps on the McFarland Standard tubes are removed. 3. The cards are sitting level in the cassette slots. 4. The cassette is seated properly in the boat when loaded onto the instrument.
3	After loading the cassette, wait for the happy sound. If the Vitek 2 detects a discrepancy between data stored on the SCS and the actual location of cards in the cassette (load errors), the cassette will be returned to the Cassette Load Station and will not process. Use the SCS screen to keep track of which isolate is where: before lifting cassette off of the SCS and placing it into the Vitek 2 instrument, press F3 to review the list of barcode numbers and card types. Check carefully that the barcode number, card type, isolate number and cassette position match the F3 screen. Correct any discrepancies by using the F8 and/or F9 keys. It may be simpler to use F10 (to erase the entire cassette) and start over.
4	After the cards are loaded, the cassette will travel back to the loading dock. Unload the cassette when light is flashing green.
5	Replace the cassette onto the SCS. Press any key other than F1 to display the load list.
6	Make purity plates using the blue stick and appropriate media. Incubate in the CO_2 incubator.

REFERENCES:

- Vitek 2 Instrument Manual, 2015-07
- Vitek 2 Product Information Manual, 2015-07
- DensiCHEK plus User Manual, 2016/03

REVISION HISTORY:

REVISION	DATE	Description of Change	REQUESTED BY
1.0		Initial Release	L. Steven