How to use the Trans-Isolate (T-I) system for isolation and transport of meningococci and other agents causing bacterial meningitis from CSF.

1. **Procedure for inoculating T-I medium for transporting meningcocci and other agents causing bacterial meningitis from CSF:**

   1.1 Remove a vial of Trans-Isolate (T-I) medium from refrigerator at least 30 minutes before inoculating it with the specimen. Allow the vial to warm to room temperature which is more favorable for growth of the organism.

   1.2 Before inoculating the vial, check to see if there is any visible growth or turbidity. If there is visible growth or turbidity, discard the vial, because it may be contaminated.

   1.3 Lift up the small lid in the middle of the metal cap on top of the T-I vial.

   1.4 Disinfect the top of the T-I vial with 70% alcohol or iodine. Allow to dry (usually 30 to 60 seconds).

   1.5 Use a sterile syringe and sterile needle preferably 21G, 0.8 mm. to aspirate 500 microliters (one-half of an mL) of cerebrospinal fluid (CSF) from the tube containing CSF.

   1.6 Inject the CSF into the T-I vial through the disinfected dry stopper on the top of the T-I vial.

2. Transport and incubation of T-I vials, and inoculation of the culture media

The procedures to follow depend upon how promptly the TI vials can reach the laboratory of reference that will perform culture and isolation.

If T-I vials **cannot** reach the laboratory of reference within 24 hours::

- Label the T-I vial with the date, name of the patient, and any other necessary identifiers.
- Ventilate the T-I vial with a sterile cotton plugged needle. **The** Needle should not dip into the culture media(broth).
- Store the ventilated T-I vial in an upright position at room temperature. Make sure it is away from excessive heat, direct sunlight, and dust.
- Before transporting the vial, remove the ventilating needle from the top of the T-I vial. This will prevent leakage and contamination during shipment.
- Transport the T-I vial in a sealed plastic bag to minimize the risks of contamination and attach the case report form

If TI vials can reach the laboratory of reference within 24 hours:

- Label the T-I vial with the date, name of the patient, and any other necessary identifiers.
- Ship the T-I vials without ventilation.
- Transport the TI in a sealed plastic bag to minimize the risk of contamination and attach the case report form.

3. Additional recommendations about the proper use of T-I vials and ventilating the inoculated T-I vials:

- The T-I vials can be used for at least 1 year after the date of production provided that they are stored in the refrigerator.
- Freezing T-I vials destroys the T-I medium.
- Non-inoculated T-I vials should be packed in cold packs for shipment to the laboratory of reference.
- In previous studies (*Ajello et al* below), cultures on ventilated T-I vials 2 to 4 weeks after inoculation with CSF (from patients with acute bacterial meningitis), incubation and transport resulted in a loss of growth in only 20 to 25% of inoculated vials. Without ventilation the losses were much greater.
- Contamination is the single most problematic point with the system. Aseptic measures and understanding the risks are necessary to achieve good recovery of the isolates.

Reference: Ajello GA, Feely JC, Hayes PS, Reingold AL, Bolan G, Broome CV, and Phillips CJ. *Trans-Isolate Medium: a New Medium for Primary Culturing and Transport of Neisseria meningitidis, Streptococcus pneumoniae, and Haemophilus influenzae.* J Clin Microbiol, 1984: 20 (1): 55-58.