Hand Hygiene Technique Demonstration - Hand cultures

To demonstrate how many germs may be lurking on healthcare personnel hands, we cultured them! We did this both before and after hand hygiene to show what a difference it can make to prevent the spread of infections.

Supplies

- Culture plates  
  (e.g. nutrient agar, blood agar)
- Hand hygiene products  
  (soap/water, alcohol-based hand rub)
- Marker
- Tape
- Incubator or table top in a warm location

Directions

1. Ask for staff volunteers. Try to select staff from different units, and who perform different jobs and roles.
2. Have staff place their finger tips on an agar plate.
3. Then ask them perform hand hygiene using either soap and water or alcohol-based hand sanitizer.
4. Have staff place their finger tips on another agar plate.
5. Mark the plates as ‘before’ or ‘after’ and for the ‘after’ plates which method of hand hygiene was used. Tape the edges of the plates to keep lid attached.
6. Incubate these plates in an incubator (30-35°C) or on a table top at room temperature for 24-48 hours.
7. After the incubation period, gather staff and present the plates. Point out which ‘before’ and ‘after’ pairs represent good hand hygiene technique and which may need some improvement.
Two sets of hand culture plates taken before and after hand hygiene (left and right side plates in each picture respectively) are shown above. The first pair of plates on the top demonstrates good hand hygiene technique with significant reductions in bacteria after hand hygiene, compared to the second pair of plates on the bottom, which shows little reduction in bacteria.