Knitting Processes and Yarn Management

The set-up and operation of a knitting machine is complex and requires precision settings to produce first quality goods. Machine related causes of barré include:

1. Different stitch settings (stitch lengths).
2. Improper tension at a feed.
3. Faulty cylinder or dial cam settings.
4. Malfunctioning of storage or tape feeders.
5. Improper threading of yarn.
6. Variations at take-down or spreader system.
7. Machine vibration.
8. Dirt, lint, and/or yarn fragments in the camming system, tricks, needles, or sinkers.
9. Variation in oil content.
10. Worn needles, which generally produce length direction streaks.
11. Uneven cylinder height needles (wavy barré).
12. Worn cylinder and/or dial.

Even with a properly set-up machine, barré can still occur at knitting due to poor yarn management. Examples of poor yarn management at knitting include:

1. Mixing yarns of different counts.
2. Mixing yarns from different spinning systems.
3. Mixing yarns with different blend levels.
4. Mixing yarns from different suppliers.
5. Mixing yarns with different twist level/twist direction.
6. Mixing yarns with different degrees of hairiness.
7. Mixing yarns with different amounts of wax.
8. Mercerization differences.
9. Excessive backwinding or abrasion during this process.
10. If yarns are conditioned, then each lot must be uniformly conditioned.