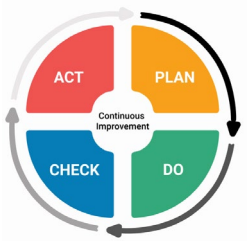
Six Step Problem Solving Workbook

The six-step problem solving methodology provides a road map for making improvements based on data and logic. It is rooted in the Plan, Do, Check, Act model. Following this methodology brings consistency in approach across the organization.



Date: _____

Office Name: _____

Project/Process Name: Safety Officer – Handpieces

Plan:

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Step 1: Identify the Problem

Objective: Understand the problem and demonstrate the need for improvement.
Tools and Methods:

- Support Tickets (See below)
- Goal Statement, Charter, Scope of Work, Business Issue Statement
- Set Indicators & Measures *(how will you know)*

Directions: gather & review relevant Information.

- Support ticket data
- IFU Instructions for use and maintenance
- Service Coordinator data regarding broken or replacements needed

Directions: Use the SMART GOALS Worksheet to write your Goal Statement.

Decrease (or maintain) the number of handpiece failures from _____ to < less than 1 per 6 month period.

Step 2: Determine Area of Focus

Objective: Use data to isolate significant area of focus and set goals.
Tools and Methods:

- Instruction Manual
- CDC Guidelines for Handpiece Maintenance
- Intranet: Main/Supplies/Maintenance and Repairs/Equipment/Handpiece Maintenance (or Equipment Maintenance)

Area of Focus	Indicators	Key Questions to Ask
Maintenance And Maintenance Station	Result in the bur coming loose and falling out during operation. Power/cutting effectiveness when slow speed handpieces break, they will rotate with little or no torque. This is due to debris buildup sterilized inside the handpiece.	• Were the handpieces wiped down following each procedure and before sterilized? • Was the handpiece properly lubricated? • Is the correct handpiece oil used in the maintenance station? • Are all handpieces failing or is the issue intermittent?
Autoclave	Lack of power, torque, speed and air consumption. Loose burs. Rust and erosion on handpiece	• Was the Autoclave running properly in a sterilized pouch? • Was the Autoclave cycle interrupted or did it run all the way through? • Were the instructions for sterilization followed? • Were the pouches dry prior to putting them away? • Were handpiece submerged in any liquid? • Are handpieces and motors properly placed in sterilized pouch and properly loaded. • Do not Overload sterilizer. • Was there a Faulty gaskets?

Area of Focus	Indicators	Key Questions to Ask
Storage	Punctured or missing sterilized pouches Build-up of debris Missing handpieces and motors	• Was the handpiece stored in the sterilized pouch? • Is there a designated area to store handpieces? • Are sterilized pouches dated with which autoclave was used?
Burs	Burs falling out Burs not fitting consistently	• Has the problem been ongoing or more recent? • Remove your bur prior to lubricating and purging your handpiece.

Do:

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Step 3: Analyze the Problem

Objective: Validate the root cause of the problem.
Tools and Methods:

- Cause & Effect
- 5 Why's
- Fishbone (or Tree) Diagram

Directions: Write your Area of Focus on the line below. Answer Why until you cannot answer Why any more. To achieve best results, select solutions that address the underlying Whys.

Area of Focus _____

Why: _____

_____

Why: _____

_____

Why: _____

_____

Why: _____

_____

Why: _____

_____

Step 4: Select and Implement Solutions

Objective: Select and implement solutions that eliminate or reduce root cause.
Tools and Methods:

- Selection Matrix
- Basic Project Plan

Solution	Description	Next Steps
Storage	Stored in sanitation pouch in a clutter free drawer	1. Designate a specific location for all motors and handpieces 2. Make sure all handpieces are stored in a sterilized dated pouch without punctures 3. Before storing – confirm bag is completely dry
Maintenance Station	Proper maintenance station for device Maintenance station working properly and is utilized after wiped down with each patient	1. Refer to manufacture guidelines for your handpiece to ensure the correct station 2. Make sure *plugged* in and running for the correct amount of time to oil the handpiece 3. Make sure used on each handpiece after each patient before sterilized
Oil	Appropriate oil utilized	1. Refer to manufacture guidelines for your handpiece to ensure the correct oil 2. Make sure the correct amount of oil is used each time
Sterilization Process	Instruments wiped down before sterilization and sterilized after each use Overloaded sterilizer Faulty gaskets	1. Wipe down extra debris before running through the maintenance station 2. Ensure no additional dirt or debris remains before bagging and sterilizing 3. Make sure the appropriate sterilization pouch is used with the machine number and date 4. Ensure dry before storing 5. The combination of pressure, temperature, and time are the major factors in achieving sterilization
Autoclave	Confirm Autoclave is correct temperature Autoclave runs through the whole drying cycle	1. Make sure Autoclave is run at the appropriate temp 2. Make sure sterilizer is not overloaded 3. Make sure the dry cycle has completed prior to unloading and storing devices 4. Drying is a critical phase of the sterilization process. If packages are still moist when the sterilizer door is opened, bacteria can land on the packages and "wick" or travel inside the package, especially if the packages are handled before completely cooled. Drying time depends on: · The device manufacturer's instructions · The sterilizer manufacturer's instructions · The age of the sterilizer · The packaging system used 5. High-speed handpieces are sterilized with a 4 H bur 6. Confirm indicator pouch was properly sterilized

Directions: Create a Basic Project Plan for the solution identified above.

What	When	Who

Check/Act: Next Steps

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Step 5: Manage/Measure Improvements

Objective: Measure effectiveness of selected methods of improvement.
Tools and Methods:

- Open support tickets
- Antidotal evidence based on solution
- Team Meetings

Directions: Discuss / List How & When We Will Measure & Track Success

Step 6: Plan Next Steps

Objective: Check on team progress and effectiveness of the process. Establish a starting point for the next effort if necessary.

Tools and Methods:

- Lessons Learned
- Action Items & Future Plans

Directions: Identify next steps and future evaluation:

Process to be re-evaluated: _____

_____

_____

_____