This worksheet contains all of the questions you will encounter for Benchmarking Solutions—HTM. Use it as a reference and data collection tool.

Help Text

Clinical Engineering (CE) Program—Space

- CE Space—Office
  Square feet of office space for the CE program.

- CE Space—Shop
  Square feet of shop space for the CE program.

Clinical Engineering (CE) Program—Activities

- Equipment Maintenance
  The CE program has significant responsibility and accountability for managing or providing personnel and services—select only one.
  - None of the above
  - Equipment Maintenance
  - Instrumentation
  - Laser Safety
  - Support Services
  - Nursing
  - Supply Chain Management
  - Facility Services
  - Other

- Equipment Acquisition—Devices—General Biomedical
  Total number of devices for monitoring, treatment, or life support. Examples: physiological monitors, anesthesia machines, ventilators, etc.

- Equipment Acquisition—Devices—Therapeutic Radiology
  Total number of imaging or therapeutic radiology equipment managed or maintained by CE. Examples are x-ray equipment, ultrasound equipment, CT systems, MR systems, linear accelerators, and other radiation modalities.

- Equipment Acquisition—Other
  Total number of all other devices (patient care and non-patient care devices not included in the categories above) managed or maintained by CE. Examples: beds, stretchers, wheelchairs, clinic equipment, ventilators, etc.

- HCO Expenses
  Enter the total annual expenses for the HCO. For purposes of this table, expenses means that CE is responsible for maintenance (inspection, scheduled maintenance, and repair) and the cost of maintenance (regardless of who performs the maintenance). Including all costs in the CMMS documentation, repair parts, maintenance contracts, software, and vendor installation.

- HCO Expenses
  Enter the total annual Adjusted Discharges (CMI Weighted) value. Enter the total number of inpatient discharges, adjusted for the number of outpatient visits, then multiplied by the CMI (Case Mix Index). This is a measure of service volume for the HCO. It represents the total number of inpatient discharges, adjusted for the number of outpatient visits, then multiplied by the CMI (Case Mix Index).

- Clinical Engineering (CE) Program—Personnel

- Clinical Engineering (CE) Program—Selection of Vendors and Negotiation of Maintenance Contracts
  The CE program has significant responsibility and accountability for selecting maintenance contracts and negotiating maintenance costs for the equipment managed or maintained by CE. Examples are x-ray equipment, ultrasound equipment, CT systems, MR systems, linear accelerators, and other radiation equipment managed or maintained by CE. Examples are x-ray equipment, ultrasound equipment, CT systems, MR systems, linear accelerators, and other radiation equipment. The total acquisition cost of all imaging equipment and other therapeutic radiology equipment managed or maintained by CE. The number of linear accelerators, gamma knife systems, stereotactic radiosurgery systems, cyberknife systems, and similar therapeutic radiology equipment managed or maintained by CE.

- Clinical Engineering (CE) Program—Other

- Radiation Therapy Systems
  The number of linear accelerators, gamma knife systems, stereotactic radiosurgery systems, cyberknife systems, and similar therapeutic radiology equipment managed or maintained by CE. Examples are x-ray equipment, ultrasound equipment, CT systems, MR systems, linear accelerators.

- Clinical Laboratory
  This table includes all equipment used for the Clinical Laboratory (including devices used for the separation, storage, and analysis of patient specimens and pharmaceuticals). None of the above.
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**Question:** Replacement Planning Factors. CE uses which of these factors in making equipment replacement decisions? Select all that apply.

- Replacement & Repair
- Maintenance Contracts
- Certification Support

**Question:** CE Program Staffing—Professional Roles. CE Program Staffing by Professional Roles. Total FTEs Total number of FTEs in the CE program.

- CE Program Staffing—Professional Titles
- Number of Clinical Engineers
- Number of Other Personnel
- Number of Managers and CE Program Staffing by Professional Roles

**Question:** Non-stock Parts Expenses. Total annual cost for parts not stocked by the CE program and maintained by the CE program.

- Total Technology Management Hours for other projects and technology implementation
- Benefits Expenses

**Question:** Equipment NPF Outcomes. What percentage of work orders are identified as “No Problem Found,” “Could Not Duplicate,” “Use Error,” “Abuse,” or similar outcomes?

- Effectiveness of equipment repair activities
- Effectiveness of inspection and preventive maintenance

**Question:** Equipment NPF Outcomes. The CE program continuously monitors its operational interface projects, IT security, IT networking, software patching, and other IT-related activities? Include ALL medical device/IT evaluation (e.g. for projects, include time spent up until vendor and Root Cause Analysis (RCA).

- Equipment interface projects
- Computer and network security
- Remote monitoring of medical device network performance, etc.

**Question:** PGSM—Staff Qualifications. What knowledge, skills, and abilities are critical for the success of CE program management or other functions (not management/supervision and not other CE roles)?

- At least 10 years of experience in the CE field
- None of the above

**Question:** PGSM—Staff Qualifications. The CE program staff who hold the Certified in Clinical Engineering (CCE) credential.

- Certification—CBET
- Certification—IT
- None of these

**Question:** PGSM—Staff Qualifications. The number of FTEs in the CE department that are primarily involved in other functions (not management/supervision and not other CE roles).

- The number of FTEs in the CE department that are primarily involved in other functions (not management/supervision and not other CE roles)
- The number of FTEs in the CE department that are primarily involved in management/supervision

**Question:** PGSM—Staff Qualifications. The total acquisition cost of all of the general biomedical pharmaceuticals.

- The total acquisition cost of all of the general biomedical pharmaceuticals
- The total acquisition cost of non-contract labor and materials for equipment managed or maintained by the CE program.

**Question:** Non-Staff Expenses. Total annual cost of benefits for all FTEs in the CE program. If not available, use the best estimate.

- Reimbursement of the application or testing fee
- Certification—IT

**Question:** Staffing—Professional Qualifications. CE Program Staffing by Professional Roles. Total FTEs Total number of FTEs in the CE program.

- Number of Other Personnel
- Number of Managers

**Question:** Staffing—Professional Qualifications. CE Program Staffing by Professional Roles. CE Program Staffing by Professional Roles.

- CE Program Staffing—Professional Titles
- CE Program Staffing—Professional Qualifications

**Question:** Staffing—Professional Qualifications. The number of FTEs in the CE department that are primarily involved in other functions (not management/supervision and not other CE roles).

- The number of FTEs in the CE department that are primarily involved in management/supervision
- The number of FTEs in the CE department that are primarily involved in other functions (not management/supervision and not other CE roles)

**Question:** Staffing—Professional Qualifications. The number of FTEs in the CE department that are primarily involved in management/supervision.

- The number of FTEs in the CE department that are primarily involved in other functions (not management/supervision and not other CE roles)
- The number of FTEs in the CE department that are primarily involved in management/supervision

**Question:** Staffing—Professional Qualifications. Number of CE program staff who hold the Certified in Clinical Engineering (CCE) credential.

- Certification—CBET
- Certification—IT
- Certification—CLES, CRES

**Question:** Staffing—Professional Qualifications. Certification—CBET. Number of CE program staff who hold the Certified in Clinical Engineering (CCE) credential.

- Certification—CBET
- Certification—IT
- Certification—CLES, CRES

**Question:** Staffing—Professional Qualifications. CE Program Staffing by Professional Roles. CE Program Staffing by Professional Roles.

- Number of Managers and CE Program Staffing by Professional Roles
- CE Program Staffing—Professional Titles

**Question:** Staffing—Professional Qualifications. CE Program Staffing by Professional Roles. Total FTEs Total number of FTEs in the CE program.

- CE Program Staffing—Professional Roles
- CE Program Staffing—Professional Titles

**Question:** Staffing—Professional Qualifications. The number of FTEs in the CE department that are primarily involved in other functions (not management/supervision and not other CE roles).

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