Sustainable development: a new approach for quality management

Dr Bénédicte GOURIEUX
Pharmacy-Sterilization Department
University Hospitals of Strasbourg
University Hospitals of Strasbourg

- 2,835 Beds
- 50 Operating rooms
- 100 Dental seats
- 82 FTE Sterilization professionals
- 1.3 FTE Pharmacists (CSSD)
- 0.5 FTE Person in charge of quality assurance
University Hospitals of Strasbourg

- Centre Médico-Chirurgical et Obstétrical
- Hôpital de Hautepierre
- Hôpital Civil Nouvel Hôpital Civil
- Hôpital de la Robertsau
- Hôpital du Neuhof
- Centre de Chirurgie Orthopédique et de la Main
- Pôle logistique

Opening hours: 24H/24
Sustainable development and CSSD?

« The sustainable development aims at the harmony between human beings and between man and nature. »

What does sustainable development mean?

- **Definition**
  - Development with watching the environmental protection by a careful use of natural resources to make them long-lasting (or sustainable) in the long term

- **Several dimensions**
  - Economic, environmental and social aspects
  - Short-, long- and longer-term perspectives

  A complex and dynamic equilibria among these aspects and perspectives
Graphical representation of sustainable development

Social aspects
Environmental aspects
Economic aspects

P = Partial integration
F = Full integration

Sustainable Health & Care System

Social
Economic
Environment
What does sustainable development mean for CSSD?

‡ Reprocessing medical devices in CSSD could highlight different areas to start a sustainable development management plan

‡ Main resources used in CSSD
  - Personnal
  - Energy (water, electricity, …)
  - Packaging, chemical products, waste
  - Building
  - Transport

Our objective:
Introduce an environment-friendly policy to minimise our impact on the environment and to improve social cohesion
The various stages

- Realize a current situation of sustainable development
  - Write a guide to manage a self-assessment in our CSSD
    - from different international guidelines
    - by integrating all the aspects (social, economic and environmental)
    - with 3 chapters: management, medical devices reprocessing, and « support » process
  - Start this self-assessment with the staff and local experts for the different topics
    - to determine our strengths and our weaknesses
  - Create a sustainable development action plan
The different chapters

- Management process
  - Quality policy
  - Commitment in sustainable development
  - Relationship with other involved people

- Support process
  - Social cohesion and professionnals
  - Health and safety in work
  - Hygiene
  - Purchases and supplies
  - CSSD areas and equipments

- Medical devices reprocessing or sterilization process
  - Water
  - Energy
  - Waste
  - Consumables
### Relations sociales et ressources humaines

**Importance du thème (cotée de 1 à 4):**

<table>
<thead>
<tr>
<th>N°</th>
<th>Processus Support</th>
<th>Performance cotée de 1 à 4</th>
<th>Justification de la réponse / indicateurs suivis / commentaires</th>
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<tr>
<td>1</td>
<td>Relations sociales et ressources humaines</td>
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</table>

**1.1** Le personnel est suffisant pour assurer les activités de production, contrôle, qualité.

**1.2** Le personnel est formé.

**1.3** Le personnel est qualifié.

**1.4** La formation de base des agents est adaptée :
- hygiène,
- bonnes pratiques de stérilisation,
- formation réglementaire à la conduite des stérilisateurs,
- formation technique,
- apprentissage sur le terrain,
- etc.

**1.5** Un plan de formation est défini, écrit et mis en œuvre.
Results

Group 1: Energy and commitment in sustainable development
Group 2: Purchases and supplies, water, waste and consumables
Group 3: Quality policy, relationship with other involved people, social cohesion and professionnals, safety and security at work, hygiene, CSSD areas and equipments
Sustainable Development Action Plan (SDAP)

Key points

- This sustainable development management approach is integrated in our hospital strategy
- A specialist for sustainable development management was named for the Pharmacy-Sterilization department: it’s the pharmacist who is responsible of CSSD

To be continued …

- Write a chapter on sustainable development management in the assurance quality book
- Create a quality board with specific sustainable development indicators (ie: waste, paper, water…)
- Educate the professionnals to develop « eco-friendly » actions
# Environmental and economic aspects

## Support process

### Key points

#### Hygiene at work
- Quality procedures for CSSD and equipements
- Quality procedures for environmental monitoring

#### CSSD areas, equipments
- Places and workstations adapted to the operations of sterilization
- Networks of water and energy identified

## Points of improvement

### Purchases and supplies
- Include sustainable development criteria in purchasing procedure and logistic supply chain (equipments, consumables, …)

### Institutional actions
Environmental and economic aspects

Key points

Water
- Specific devices to reduce water used for the hand manual wash
- Optimization of the WD for the water consumption
- Water quality

Energy
- Specific devices to reduce electricity (fluorescent lamps, piloted lighting)

Points of improvement

- Follow-up of water consumption
- Follow-up of energy consumption
- Raising awareness to eco-friendly initiatives
- Optimization of steam sterilization process?

WARNING:
A very strong regulation must be applied in sterilization process!
## Environmental and economic aspects

<table>
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<tr>
<th>Sterilization process</th>
<th>Key points</th>
<th>Points of improvement</th>
</tr>
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<tr>
<td></td>
<td>Waste</td>
<td>• Follow-up of the production of infectious and non-infectious (or &quot;domestic&quot;) waste</td>
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<td>• Training in the collection of waste</td>
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<td>• Strategy on the collection and elimination of specific waste (metals, paper, plastic)</td>
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<td>• Reduction of the paper consumption</td>
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<td>Consumables</td>
<td>• Further computerization in CSSD</td>
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</table>

- **Key points**
  - **Waste**
    - Knowledge of the chemical effluents
    - Biodegradable disinfecting cleaners
    - Rules of elimination and collection of waste
  - **Consumables**
    - Inventory management
    - Computerization of the system for traceability of medical devices
Social aspects

Management

Key points

Relationship with the staff and other involved people

- Contracts of service / agreement with customer and partner departments
- Satisfaction surveys with customers
- Choice of the suppliers according to the respect for purchasing national regulatory and evaluation of their performance
- Consideration of the suggestions of the staff
Social aspects

Key points

Social cohesion and professionnals
- Trained and qualified staff
- Social barometer (satisfaction of the agents, absenteeism rate)

Safety and security at work
- Prevention measures of the musculo-scravy disorders and against professional stress
- Index cards of safety for the products used in sterilization

Support process

Points of improvement

Safety and security at work
- Statement of the noise pollutions
- Criteria of ergonomics to be integrated into purchases
- Training on the musculo-scravy disorders
Sustainable Development Action Plan

¢ 19 points of improvement

¢ In connection with the policy of sustainable development in our hospital

Examples:
¢ Criteria to manage supplier performance
¢ Collection of waste
¢ Eco-friendly actions and initiatives
What have we learnt?

- Sustainable development is an additional approach for quality management
- It should be included in quality assurance program
- The common points are
  - how to bring under control medical devices reprocessing
  - how to manage all our resources (financial, human, energy, natural)
  - how to change our behaviours
  - and perhaps the most important, how we consume them …
Towards green practices for health care …

Many thanks to R Basso-Boccabella, J Scholler, JM Baietto, R Passemand, JM Legentil
Paris, may 2013!
University Hospital of Strasbourg
University Hospital of Strasbourg
A long and interesting history …