18th EAHP Congress – Paris 2013
BEA - 001

Réseau Latin de Médecine Intensive

Fribourg Genève Jura Neuchâtel Tessin Valais Vaud

Building up a regional and interdisciplinary network for better use of medicines in intensive care units

Pierre Voirol[1], Laurent Gattlen[2], Thierry Fumeaux[3], Philippe Eckert[4] (In the name of Sipharom)

1.Service of pharmacy University Hospital, Lausanne ; 2.Service of adult intensive Care Medicine University Hospital, Lausanne ;
3.Service of intensive Care, Regional Hospital Nyon ; 4.Service of intensive Care, Clinic La Source, Lausanne, Switzerland

Background

Clinical pharmacy in intensive care units (ICUs) showed beneficial effects on safety and economics.

The set up of a regional network including pharmacists, physicians and nurses of all ICUs seemed useful for the following reasons:

- Issues regarding medication use in ICU are similar in all hospitals.

- Patients are often transferred from a tertiary care hospital to a secondary one or vice versa.

- Health care givers move from a hospital to another one during their career

In 2007, an interdisciplinary group, **Sipharom**, was set up in order to create a network in the French and Italian speaking parts of Switzerland.

Projet Purpose

The goals of the project are:

• exchange of data on drug administration in ICUs

• sharing of knowledge and skills

• establishing standards for the administration of drugs

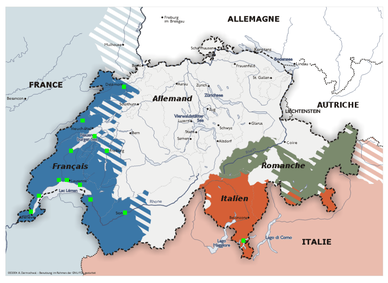
Materials and Methods

Sipharom involves now 13 hospitals. Each is represented by an ICU physician, an ICU nurse and a pharmacist.

The group meets twice a year. Then, each member has to implement the decisions in his/her hospital.

Evolution:

2007	Creation of Sipharom (5 centres)
2007-2012	Integration of new sites
2010	Integration of Sipharom as a unit of a medical network of all ICUs of the French- and Italian-speaking parts of Switzerland (RLMI)
2012	Most of the 13 sites members of Sipharom are represented by a physician, a nurse and a pharmacist.



Sites members of Sipharom

Results

Four main axes have been developed:

1) **Harmonisation of the dilution and preparation** of intravenous drugs:
52 standard dilutions have been defined. This led to collaborations with industries in order to obtain ready-to-use preparations at the defined dilutions.

Examples of dilutions:

Brand Name	Generic name	DECISION OF SIPHAROM
ACTRAPID	Insuline	0,5 ml = 50 UI + Dextrose 5 % or NaCl 0,9% ad 50 ml. 1 ml/h = 1 UI/h.
ADALAT	Nifedipine	5 mg (1 x 50 ml/5 mg), PURE
ADRENALINE	Epinephrine	15 mg (1,5 x 10 ml/10 mg) + 35 ml Dextrose 5% 1 ml/h = 5 µg/min
ADRENALINE	Epinephrine	3 mg (3 x 1 ml/1 mg) + 47 ml NaCl 0.9% 1 ml/h = 1 mcg/min
AGGRASTAT	Tirofiban	12.5 mg (1 Flex de 250 ml), PURE 1 ml/h = 50 µg/h
CATAPRESAN	Clonidine	2amp.=300mcg=2ml + 22ml NaCl 0.9% 1ml=12.5 mcg (300mcg/24h=1ml/h)

2) **Harmonisation of the labelling** of syringes:
Definition of the minimal list of elements that labels have to include (based on the available international guidelines and norms).

Minimal list of elements required on labels

1. Preparation / Dilution
2. Highly relevant information (e.g. limited stability / To be protected from light)
3. Date / Time of preparation / signature(s)
4. Brand name
5. Generic name
6. Dose-speed of perfusion

3) **Exchange of critical data**
Messages of alerts, problems of stability or of physico-chemical compatibilities

4) **Drafting of joint guidelines** on drug use within the network

Benefits of standardisation

Nurses:

Univocal documents

Simplicity in drug preparation and administration

Physicians:

Reflection on practices and of the way of prescribing

Pharmacists :

Simplification in the elaboration of reference documents (concentration, stability)

Simplification in the realisation of compatibility analysis

Expected impact of the network

Impact on safety

Decrease of risk during transfer of patients

Less habits to change when a care-giver (physician or nurse) move to another hospital

Standardisation of medication use

Financial impact

Weight of the network when negotiating with industries

Discussion and conclusions

Establishing a network is an effective way of increasing the exchange of expertise.

It can lead to the simplification and harmonization of practices and therefore help reducing risks and medication errors and limit problems related to the movement of patients and caregivers.

Pharmacists have to be the driving force of such interdisciplinary projects focusing on drug use.

Members of the network

Sion	Pierre Turini Muriel Joris-Frasseren Emmanuel Benoît
Jura	Alain Kocher Norbert Croce Juliane Fringeli
Geneva (HUG)	Didier Tassaux Claude Guegueniat-Dupessey Thérèse Siegrist
Lausanne (CHUV)	Philippe Eggimann Laurent Gattlen, Isabelle Maillard Pierre Voirol
Nyon (GHOL)	Thierry Fumeaux Catherine Sermet Corinne Chalet
Vevey (Riviera)	Damien Tagan (medicine) Gérald Seemater/Christine Lebrun (surgery) Sophie Wallef (medicine) Sandrine Gabens (surgery) Anne-Laure Blanc

Chablais	Natalie Schai
Morges	Anne Bezançon, Florence Prudhomme Corinne Chalet
Fribourg (HFR)	Vincent Ribordy Marianne Maus
Yverdon	François Lapres Renaud Pichon
Payerne	David Chabanel Jean-Paul Charlaine Renaud Pichon
Neuchâtel – La Chaux-de-Fonds (HNE)	Denise Njemba-Freiburghaus Marjorie Lambotte Rima Ducommun
Cardio Centro Lugano	Paola Rusca

Contact: pierre.voirol@chuv.ch