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# Autopsies in decrease: how to avoid it! A Swiss experience

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**NO CONFLICT OF INTEREST**

# Plan

**Definition and legal situation in Europe and in Switzerland**

**Contexts**

**Indications/Needs**

**Factors of decline**

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**Aim of our project**

**Methods**

**Results**

**Conclusion**

# Definition and legal situation in Europe

## Different settings In Europe:

All autopsies (Forensic and Medical autopsies) performed **by Forensic sciences**

**Or**

Forensic autopsies, at the request of the judicial body performed **by forensic sciences**

**And**

Medical autopsies performed **by pathologists**

# Definition and legal situation in Switzerland

## Situation in Switzerland:

Forensic autopsies, at the request of the judicial body **performed by Forensic sciences**

**And**

Medical autopsies **performed by Pathologists**

# Definition and legal situation in Switzerland

## Costs in Switzerland:

Forensic autopsies: **paid by the guilty party**

Medical autopsies: **paid by the clinical pathology service.** Free of charge for the family

# Definition and legal situation in Switzerland

## Legal situation in Switzerland:

- Forensic autopsies: **No agreement is needed with the family.**  
Mandatory when asked by attorney, judge or prosecutor.
- Medical autopsies: **Agreement is needed with the family.**  
Demand of autopsies submitted by clinicians to the family.

**Confusion among medical and non-medical population**

# Situation in Europe and in Switzerland

- In Europe, the number of autopsies is decreasing.
- Some countries **don't record any medical autopsy activity in Pathology.**



# Situation in Switzerland

- **5 University Hospitals**
- **Around 1000 deaths per year per Hospital**
- Autopsies have been performed on **40% of deceased patients in 1990**
- The rate of autopsies is decreasing over the years
- **In 2018, only 10% of deceased patients underwent an autopsy**

# Contexts

**when do we ask for a medical autopsy ?**

- unexpected death
- Death under research protocol
- Evaluation of a treatment response
- On the family's request

# Needs for medical autopsies

## Who needs medical autopsies?

### Families

- To help in the grieving process.

### Services

- Identification of the cause of death and correlation with clinical events, medical imaging, treatments.

### Social and preventive medicine

- Determination/validation of the cause of death for National health statistics.

# Needs for medical autopsies

## Who needs medical autopsies ?

### Hygiene Hospital

- Identification of the cause of infection, investigations of medical and familial communities

### Pathologists

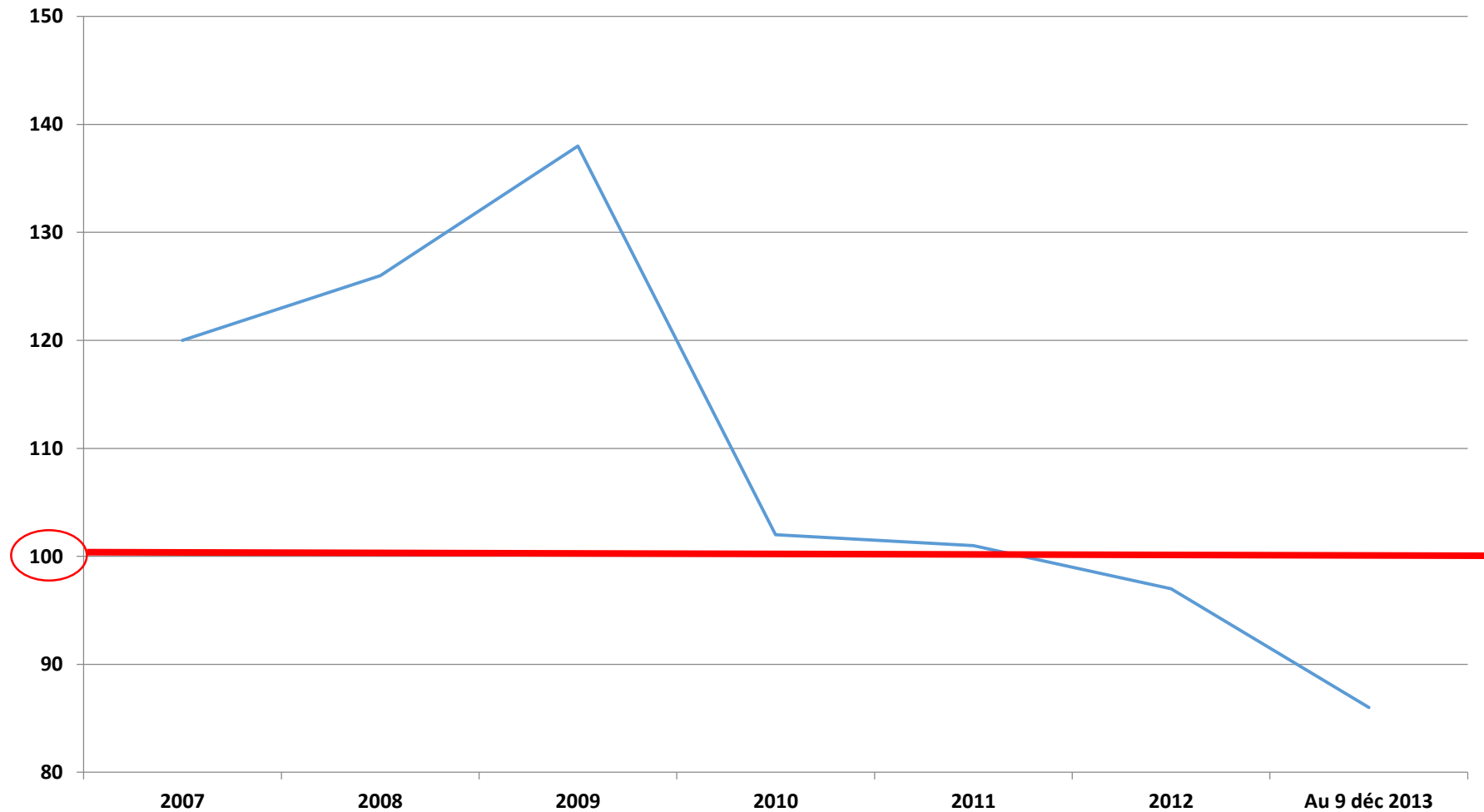
- Need 80 autopsies to have the Swiss Board in Pathology

### Institution

- An increment of index of quality control for clinicians

# Factors of decline in the number of autopsies

For what reasons ?



# Factors in the decline of the number of autopsies

## What are the causes?

- Lack of knowledge about the usefulness of medical autopsies among medical population
- Overconfidence in medical imaging by clinicians
- Difficulties of procedure to get the family's authorisation for an autopsy
  - For lack of time
  - Lack of teaching in how to demand an autopsy to the family
- Concerns by the clinicians about the medico-legal consequences
- Preconceived ideas among clinicians about costs of autopsies for family and/or services
- Different studies didn't show any role of religion in this decline

# Index of quality control

## Intern study 2004-2008

- 717 autopsies
- **Major discrepancies** between clinical diagnosis and autopsies : **16%**
- **Minor discrepancies** between clinical diagnosis and autopsies : **22%**
- Concordance: 65%

**=> Autopsies may be a quality control index of quality control of clinical activity**

**=> Powerful argument for Direction to maintain autopsies activity**

# Aim of our project

To increase the number of autopsies in our Hospital

## Steps:

- 1- **First year:** To reverse the negative slope in terms of number of autopsies/year
- 2- **Over 3 next years:** Try to increase number of autopsies/year
- 3- **Ideal target:** 30% of deceased patients /year undergo an autopsy



# Methods

## **Means:**

- Support of Institution
- Support of Communication service
- Support of IT service
- No increase of financial support

## **Human resources:**

- One staff pathologist (partial time with clinical pathology)
- One resident (full time)
- Two autopsy technicians

# Methods

## Start in 2014

### Modification of the procedures

- In front of all death, clinicians should prepare themselves to formulate a demand of autopsies.
- In case of violent death in hospital, a demand should also be formulated.
- That way, if forensic science decides not to proceed with an autopsy, a medical autopsy may then go through.

### Elaboration of clinical criteria to be considered in order to formulate a demand for autopsy from clinicians

- Unexpected death (including sudden death)
- Death in a context of a research protocol
- Quality control of the clinical medicine (including the efficiency of new treatments, validation of clinical diagnosis)
- All demands requested by the family

### Creation of an educational module to train clinicians and nurses on how to formulate a demand for an autopsy

- “It is easier to sell when we know what we are selling”

# Methods

## **Development of a dedicated folder for the internal and external communication**

- Visit of all hospital services twice a year in order to explain the importance of the autopsies.
- Distribution of specific folders as external communication during every hospital visits.

## **Training of medical students using autopsy vignettes**

- Make them aware of the autopsies' needs.
- Organize practical lessons in the autopsy room, which are included in the pre-graduate training program at the Medical Faculty of the University of Lausanne.

# Methods

## **Communication directed to all funeral services of our region**

- Organize meetings to explain the difference between medical autopsies and forensic autopsies to avoid misunderstanding with families.

## **Communication directed to our hospital's employees**

- Organize some roundtable discussions on medical autopsies.
- Explain the difference between medical autopsies and forensic autopsies to avoid misunderstanding with families.

# Methods

## **Support for every employee**

- Our institution guaranteed a support in case consequences related to transparency with families

## **Communication on autopsies**

- Autopsy report for both clinicians and families have to be delivered in a reasonable amount of time (4 to 6 weeks)
- Meetings are organized for each case where discrepancies appear.

# Results

## Before our project:

2013: 93 autopsies

## Start of our project in 2014:

2014: 118 autopsies → **trend is reversed**

2015: 141 autopsies → **51% increase**

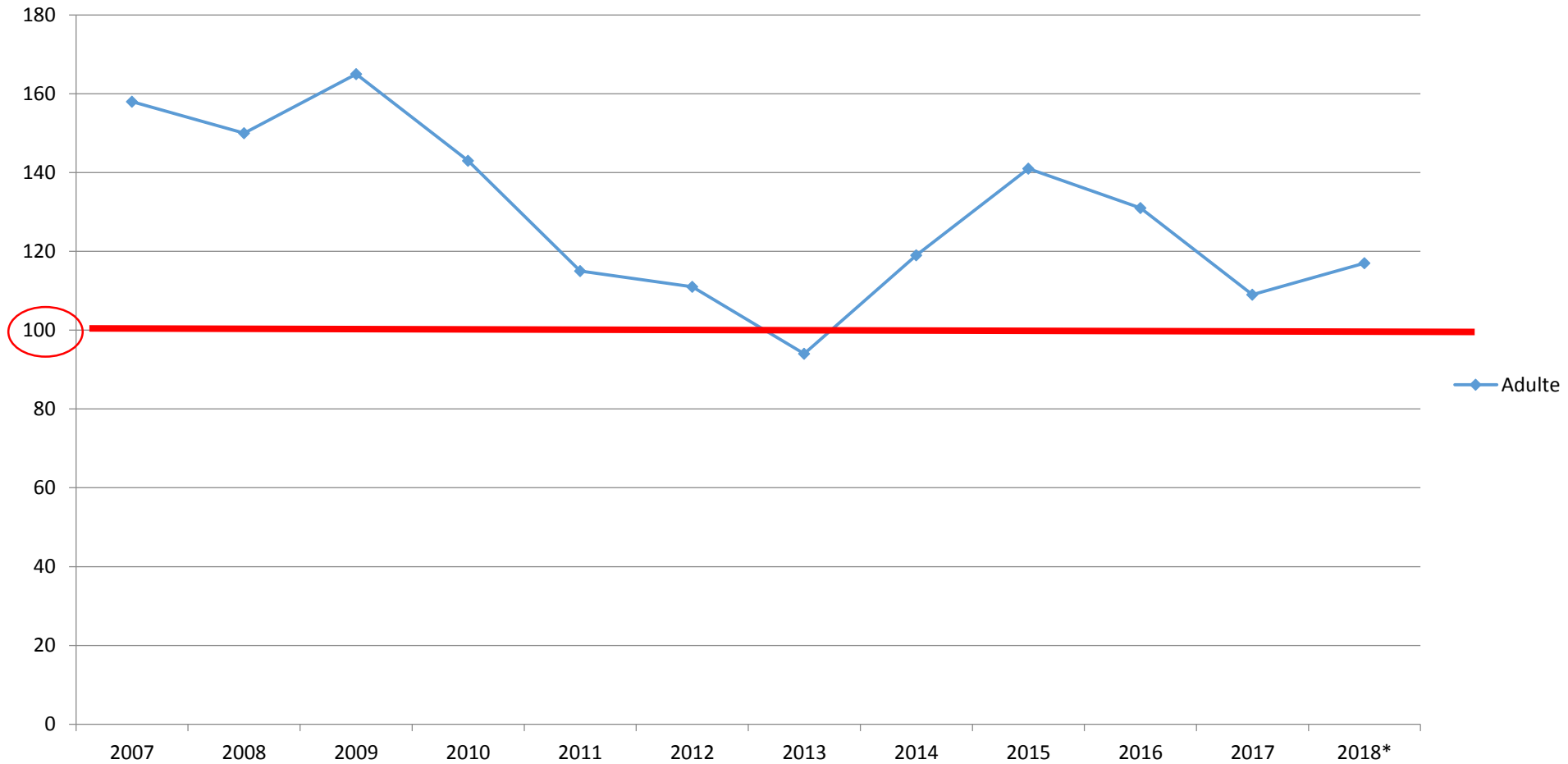
2016: 131 autopsies → **41% increase**

2017: 105 autopsies → **13% increase**

2018: **140 projected autopsies**

In 2017, an extended absence of an autopsy technician led to the cancellation of several autopsies.

# Results



In 2017, the extended absence of the autopsy technician led to the cancellation of several autopsies. Hence the decrease of the number of autopsies this same year.

# Conclusion

- We demonstrated a way to **increase fairly quickly the autopsy activity without an increase in human resources.**
- The bottleneck was an **institutional support and an intensive internal communication.**
- At the meantime, pathologists had **to strive in order to respect timing of analyses** and to bear the workload increase.
- The challenge was then to **manage this increase in workload with a constant staff.**



# Conclusion

## Main challenges

### At the beginning:

- **To convince clinicians directly connected to the patient** to request an autopsy after delivering bad news to the family.
- The **process of demand** to the family implies **time** and thus affects the **workload** of clinicians.

Our solution was **to communicate and to educate.**

# Conclusion

## Main challenges

### Over the long term:

- Clinicians get used to hear the **same arguments of communication**.
- Risk of decrease of the clinicians motivation and autopsies.

**A new communication content** will probably be necessary.

**A lighter procedure** for clinicians needs to be considered.

# Conclusion

## Main challenges

### On the pathologist's side:

- A **workload increase** without being able to anticipate the scale can be **difficult to handle**.
- The risk of being overloaded is unlikely but possible for a short period of time.

# Summary

**To increase number of medical autopsies**

**Our solution is to:**

- **Communicate and Educate**
- **Create a new design/content for our communication tools**
- **Simplify the procedure of autopsy requests**

