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## Prospective audits and feedback

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- Can be done on less than daily basis if resources are limited
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### Disadvantages

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## Since 2008: multidisciplinary working group

**Groupe de travail sur les anti-infectieux**

Annuaire



Lien(s) (3)

- Etude OPA: Objectif Préservation Antibiotiques
- Guide d'antibiothérapie 2019
- Statistiques de sensibilités des germes 2018

Document(s) (7)

- Antibioprophylaxie en ORL
- Antibioprophylaxie en CCV
- Antibioprophylaxie en URO
- Antibioprophylaxie en CHV
- Antibioprophylaxie en CVA
- Antibioprophylaxie en OTR
- Recommandations grippe 2019-2020



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## 2009-2017: point prevalence evaluations

- Intensive care
  - General surgery
  - Emergency
- Feedback during teaching rounds
- Discussion based on their own cases
- Collaboration with clinical pharmacists

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# Impact of routine audit and feedback on the use of protected antibiotics in eight Swiss hospitals

## the NRP72 project “OPA study”

**E. Moulin, C. Pluess-Suard**, C. Bellini, L. Christin, C. Chuard, O. Clerc, A. Cometta, V. Erard, O. Marchetti, N. Troillet, C. Voide, G. Zanetti, **L. Senn**



Estelle Moulin

Catherine Pluess-Suard



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## Background



### Quantitative data

- The Swiss center for antibiotic resistance **anresis.ch** monitors consumption of antibiotics in Switzerland



### Données de consommation des antibiotiques

Un réseau sentinel pour l'évaluation de l'utilisation d'antibiotiques est en développement pour l'ambulatoire et a été mis sur pied pour le milieu hospitalier. Pour ce dernier, le système de surveillance a reflété avec précision la consommation d'antibiotiques et a permis d'analyser en détail et de comparer les schémas de prescription. Les données de consommation sont fournies annuellement à anresis.ch, devenant un outil complémentaire nécessaire au monitoring de la résistance aux antibiotiques.

### Qualitative data

- Recent data on appropriateness of antibiotic therapies in Swiss hospitals are lacking
- Extent of room for improvement unknown



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## Background

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### The idea

to develop a practical, easy-to-use program that will improve the quality of antibiotic prescribing in the everyday hospital setting

### The targeted antibiotics

anti Gram-negative compounds which deserve a prudent use



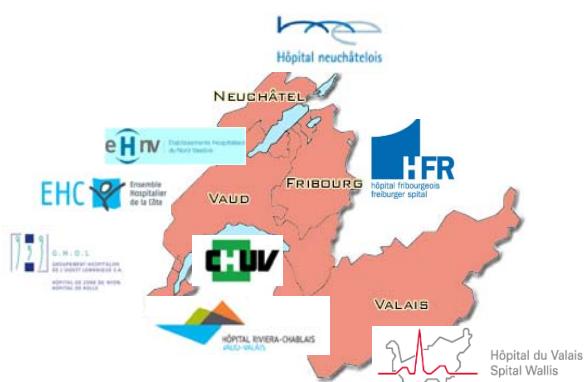
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### The OPA project: the study in brief

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1. Evaluation of the **impact of weekly clinical audits and multimodal feedback strategies** on reducing the use of
  - ✓ Quinolones
  - ✓ 3rd- and 4th-generations cephalosporins
  - ✓ Piperacillin/tazobactam
  - ✓ Carbapenems
2. Evaluation of the appropriateness of «protected» anti-Gram-negative antibiotics prescriptions
  - ✓ 8 hospitals in the french-speaking part of Switzerland
  - ✓ Targeted units: medical, general surgery and intensive care units
  - ✓ Allocation to either intervention or control group



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## Participating centres

**Partners:**

- ✓ **Infectious diseases specialist of participating centers:**

<u>Hôpital de Sion:</u> Prof. N. Troillet Dre C. Voide	<u>Hôpital de Morges:</u> Prof. O. Marchetti
<u>Hôpital de Fribourg</u> Prof. C. Chuard Dre V. Erard	<u>Hôpital de Nyon</u> Dr L. Christin
<u>Hôpital de Neuchâtel</u> Dr O. Clerc	<u>Hôpital Riviera-Chablais</u> Dre C. Bellini
<u>Hôpital d'Yverdon-les-Bains</u> Prof. A. Cometta	

- ✓ **Head physicians of medical, surgical and intensive care units**
- ✓ **Medical directors**
- ✓ **Pharmacists**





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## Our multimodal intervention

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- Weekly “antibiotic time out” **over 6 months**
- Evaluation of antibiotic prescriptions by a **tandem** of an infectious diseases specialist and a senior physician from the audited unit
- Use of a standardized **checklist**
- **Immediate feedback** to prescribers
- Monthly reports (using **newsletters**)
- **Teaching rounds** with medical teams (0, 3, 6 months)
- Use of didactic material on a **website**: [www.objectif-preservation-antibiotiques.ch](http://www.objectif-preservation-antibiotiques.ch)




Accueil
Pourquoi se mobiliser
Etude
Conseils & Bonnes pratiques

**La résistance s'organise,  
Agissons!**





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**Results I - Antibiotic prescriptions**

**OPA** OBJECTIF PRESCRIPITION ANTIBIOTIQUE

**72 PNR**

	Total	Medical units	Surgical units	ICUs
Patients screened (n)	9715	5087	3817	811
Pts with antibiotic prescriptions of targeted AB (n, %)	1684 (17.3%)	696 (13.7%)	753 (19.7%)	235 (29.0%)

✓ Quinolones  
✓ 3rd- and 4th-generations cephalosporins  
✓ Piperacillin/tazobactam  
✓ Carbapenems

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**Results II - Appropriateness**

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**72 PNR**

	Total	Medical units	Surgical units	ICUs
Patients screened (n)	9715	5087	3817	811
Pts with antibiotic prescriptions of targeted AB (n, %)	1684 (17.3%)	696 (13.7%)	753 (19.7%)	235 (29.0%)
Pts with optimization(s) proposed by the tandem (n, %)	406 (24.1%)	143 (20.5%)	242 (32.1%)	21 (8.9%)
	1/4	1/5	1/3	1/10
Optimizations proposed by the tandem* (n)	454*	164*	268*	22*
- Stop (n, %)	170 (37.4%)	45 (27.4%)	119 (44.4%)	6 (27.3%)
- De-escalation (n, %)	93 (20.5%)	35 (21.3%)	48 (17.9%)	10 (45.5%)
- Switch to oral route (n, %)	89 (19.6%)	48 (29.3%)	41 (15.2%)	0 (0%)

\* ≥ 1 proposition per patient

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 Preliminary conclusions

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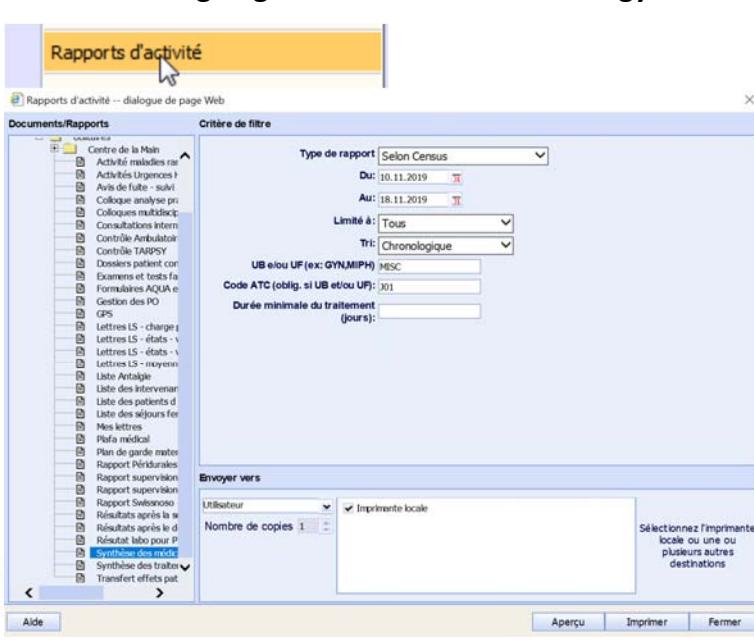
- Room for improvement of protected antibiotics therapies in our hospitals (24% of prescriptions)
  - ✓ Focus on promoting shorter duration, early switch to oral route and de-escalation of antibiotics prescriptions
  - ✓ Targeted interventions regarding type of ward (medical, surgical, ICU)
- Excellent acceptance and collaboration of head physicians and medical directors
- Most of the fellows appreciated the ID coaching (more difficult in surgical units - OR)
- Impact on consumption pending (collect of the data for the 12 months after the end of the intervention still in progress)
- Many local stakeholders (medical directors, head physicians, pharmacists, local health authorities) are now aware of the need to discuss future perspectives about better use of antibiotics in our hospitals
  - ✓ Need of resources to build a sustainable antibiotic stewardship program






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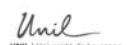
**And now ? Ongoing audits + feedback in urology and internal medicine**



Targeted antibiotics:  
quinolones and carbapenems

Tandem of a PCI pharmacist  
and a senior fellow

Opportunity to adapt specific  
internal guidelines




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**THANK YOU FOR YOUR ATTENTION**

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