Project StAR-2

StAR National Antimicrobial Stewardship Programs: 2nd SwissASP Networking Zoom call, 24 Mar 2021, 9-11h

Meeting summary report

1. Summary

This report presents key points, recommendations and next steps discussed in the interactive two-hour 2nd SwissASP Networking Zoom call, held on 24 March 2021. The call focused on local experience with Quality Improvement (QI) audits as part of antibiotic stewardship program (ASP) implementation in hospitals in Switzerland under the national StAR-2 strategy.

2. Background and meeting purpose

The SwissASP working documents (framework conditions and portfolio) were developed during the first project phase of the FOPH-funded national Strategy against Antibiotic Resistance in the human sector (StAR-1) to provide evidence-based recommendations on the successful implementation of ASP in hospitals in Switzerland. The StAR-2 phase aims to create a functioning network for the development and implementation of bottom-up ASP activities and sharing stewardship tools and experiences.

The first SwissASP networking Zoom call in November 2020 focused on experiences in stewardship implementation in different local settings. During this (second) networking call the use of quality improvement audits, potential challenges and barriers in the adherence to prescription guidelines and stewardship implementation were discussed, and ideas on how to overcome those and move forward with ASP implementation.

3. Audience

Invitees included all hospital contacts of Swissnoso and link hospital pharmacists of the Anresis network. The 46 participants included acute care hospital pharmacists and senior physicians (infectious diseases, IPC and internal medicine) either involved or interested to get involved in antibiotic stewardship → **see Annex - Participant list**.

4. Meeting format, content and speakers

The **first part of the meeting** included presentations on the *Suisse Romande experience in Antibiotic Stewardship (NRP72 project)* by Estelle Moulin (EM), CHUV, and an *Update on the Anresis new antibiotic consumption reporting dashboard tool* (Luzia Renggli, LR; and Catherine Pluess-Suard, CP). The **second part** provided a summary of feedback from a (pre-call) REDcap survey among participants: *Experience in QI audits in members of the SwissASP network* (Marcus Eder, ME), followed by an interactive discussion moderated by Julia Bielicki (JB) on the role of QI audit, challenges and solutions for successful AS implementation, to define key areas for further focus for SwissASP → **see Annex – Agenda**

5. Main discussion points

a) First part of the meeting

JB welcomed the participants to the call for advancing local AS implementation, as part of recommendations and actions identified for the human sector (StAR strategy). Focus of this call being the use of QI audits to implement and anchor stewardship at local sites.

EM presented the Suisse Romande experience in AS from the OPA Study (Objectif Préservation Antibiotiques; NRP72), a multi-site project initiated by a preexisting multidisciplinary working group (ID/IPC, microbiologist and pharmacy specialists) including eight hospitals across Suisse Romande, focusing on institutional guidelines on safe use of antimicrobials, monitoring of antibiotic consumption and resistance.

The study evaluated appropriateness of prescription/ reserve antibiotic use in intervention medical, surgical and ICU wards (including weekly clinical audits with ID physician plus physician in charge of patient and multifaceted feedback strategies) vs. control wards. There was overall appropriateness of prescriptions in 75% (in keeping with recommendations) and the rate of inappropriate prescriptions ranging from 8% on ICUs to 32 % in surgical units. Whereas in many instances reasonable level of prescribing was shown, challenges identified included prescribers' discrepancies in clinical assessment, lack of knowledge of guidelines, limited availability of department leads/team feedback sessions. It proposed awareness campaigns and continuing education for prescribers and showed the importance of a dedicated team, regular dialogue with head physicians and ward teams (challenging in sites, where many external specialists involved). The project represents the first qualitative assessment of determinants and barriers of prescribing and targets for future interventions, thus contributing to ASP implementation across hospitals in Suisse Romande. There has been good support from different stakeholder groups and efforts continue to advance harmonization of stewardship activities. → **see slides attached (confirm)**

LR and CP presented the update on the new Anresis dashboard tool. Individual login allows easy-access real-time review of own hospital data vs. anonymized, aggregated benchmarking data of all hospitals. Presentation slides → **PDF (attachments, confirm)**

b) Second part of the meeting

ME summarized survey feedback on "Experience in QI audits in members of the SwissASP network". Among 26 participants, 65 % were physicians (mostly ID/IPC) and 27% pharmacists from different-size hospitals.

All participants had been in their role for more than 5 years, and 77% more than 10 years. Perceived level of own experience in QI audits was fairly low 34% (median; range 0-75%), but a majority (64% median, range 40-100%) thought QI audits were useful in healthcare. Perceived local hospital QI audit experience was rated as average 52% (median), although the perception of how welcoming hospital management would be towards QI audit was fairly high (69% median). Perceived level of own AS team experience in QI audit was rather low (39%).

Among 9 (35%) participants with QI audit experience, the majority reported good level of support at different hierarchy levels, but for most, insufficient own or team time was available. Most had reasonable access to relevant data, but some had limitations summarizing data and/or confirming/showing a lack of good practice. All communicated their findings to the appropriate teams, less so to line managers or hospital/quality managers. Only for a few, QI audit findings would lead to negotiating more/better resources for antibiotic stewardship.

Specific feedback regarding the planning and conducting of QI audits and communicating their findings appeared depending on situation at local setting (stewardship resources available or not). Important ownership of QI from top til bottom and across teams, as well as network support for advocating resources, education and training. Presentation → **PDF (attachments)**

Key points of the interactive discussion (moderated by JB)

- **Local action for ASP implementation**
  - **Building trust through horizontal engagement (infection and other teams)**
    - Important to build trust through regular contact with wards/teams e.g. through infection/AS consultations; use resources where available for ASP activities and QI audits (to identify areas requiring change).
    - Improve health informatics supporting AS to identify wards/patients with most needs for AS intervention; more efficient consult system might provide space for AS activities (only settings in which such systems in place)
  - **Convince hospital management: Need to invest in dedicated ASP resources**
    - QI audit to demonstrate need for resources (major bottleneck for ASP)
    - ASP and quality aspects: positive impact on organization's reputation
  - **External support through Swissnoso and Anresis (SwissASP network activities)**
    - Network platform supporting AS implementation and advocacy (through consumption monitoring/ further input and activities)

- **Swissnoso and others: political support for ASP at national level**
  - Political support for hospitals to adopt ASP (similar as minimum standards for quality; regulatory pressure, cantonal hospital list) involving other stakeholders
- **Swissnoso, SSI, GSASA and others: advocating for teaching and training in ASP**
  - Ensure ID physicians practicing AS (catalysts of change- building trust)
  - Ensure AS prioritized across all postgraduate training programs (SSI/FMH; adapted tools from ESCMID initiative on generic competencies on antibiotic prescribing/AS)

6. Recommendations and next steps

- **Next networking call planned for end of May (date to be confirmed)**
- **Face to face meeting planned for end of August (date to be confirmed)**
  - **Focus to be on training**
    - Experiences from AS networks outside (e.g. France, Germany)
    - Workshops on methodological aspets, tools

7. References

SwissASP Portfolio Version 2/31 Oct 2019

SwissASP framework conditions V2/27 Oct 2019

8. Annex

I. Agenda

Time	Subject	Speaker
#8:45	Call opening	
09:00	Welcome and introduction	Dr. Julia Bielicki UKBB/Swissnoso
09:05	Presentation: Experience on AS/NRP72 project	Dr. Estelle Moulin, CHUV
09:20	Presentation: Anresis antibiotic consumption monitoring dashboard	Luzia Renggli and Catherine Plüss-Suard,, Anresis
09:35	Presentation: Summary of REDcap feedback: Local leads' experiences in QI audit	Dr. Marcus Eder Swissnoso
09.45	Interactive session: Presentations from local leads' experience in QI audits; challenges; ideas on next steps/interventions.	Dr. Julia Bielicki UKBB/Swissnoso
10:30	Wrap up of Meeting: Priorities and next steps, Q&A session - Next Networking Zoom call Wed 26 May, 2021,	Dr. Julia Bielicki UKBB/Swissnoso
10:55	Varia - Outlook face-to-face meeting in August - StAR documents (attached)	Dr. Julia Bielicki UKBB/Swissnoso
11:00	End of meeting	

II. Presentations:

CHUV NRP 72

ANRESIS monitoring of antibiotic consumption dashboard

Summary of REDcap feedback: Local leads' experiences in QI audit

III. Participant list

1.

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46

Strategie Antibiotikaresistenzen StAR

swissnoso
National Center
for Infection Control

Experience in Quality improvement audits in members of the SwissASP network

Summary of vorluntary participation online survey

Dr Marcus Eder
Swissnoso R&D team

2nd SwissASP Network Zoom call
Wed, 24. March 2021

Summary of voluntary participation online survey

Quality Improvement audits in antibiotic stewardship

- determine adherence to prescribing guidelines
- Identify need for and, guide stewardship interventions
- demonstrate need for local ASP resources (FTE, IT)

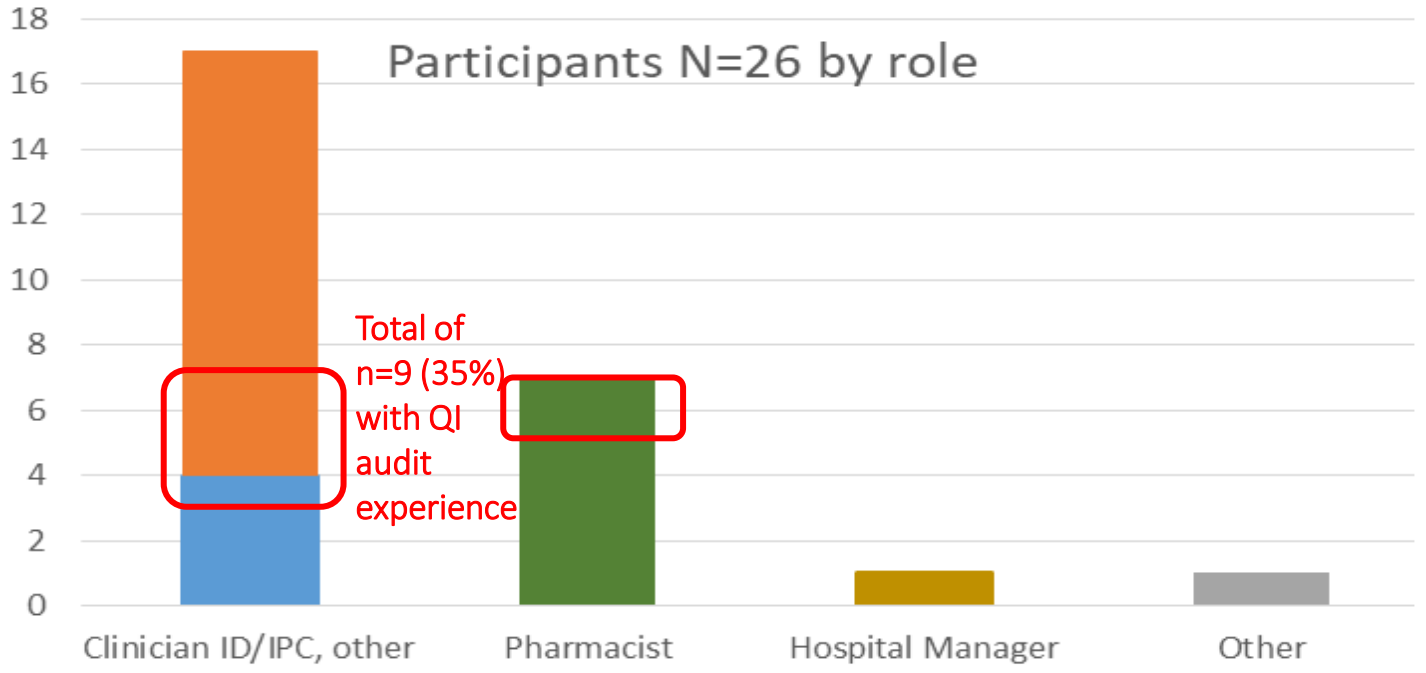
Aim of survey among SwissASP local leads

- Determine QI audit **experience**
- **Ideas** (overcome potential challenges, interventions)

Participants, n=26

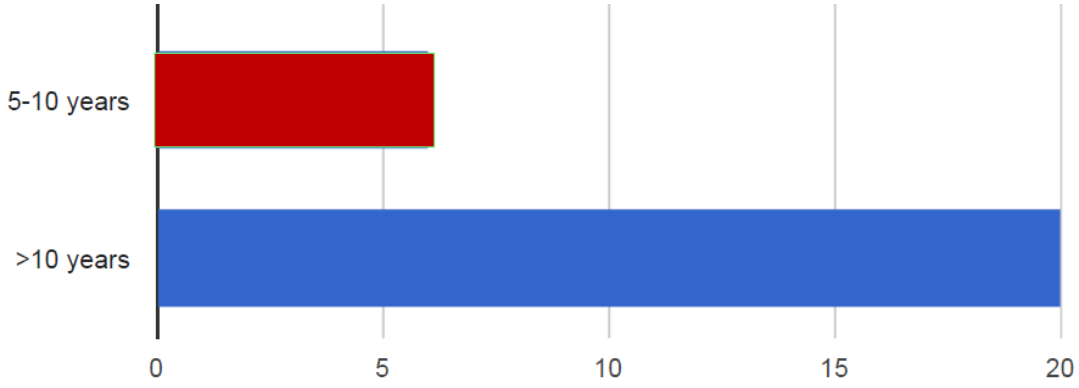
Role

Clinician	17 (65%)
- ID or IPC	13
- other	4
Pharmacist	7 (27%)
Hosp.manager	1 (4%)
Other	1 (4%)
- Researcher	1



Seniority (Yrs since primary qualification)

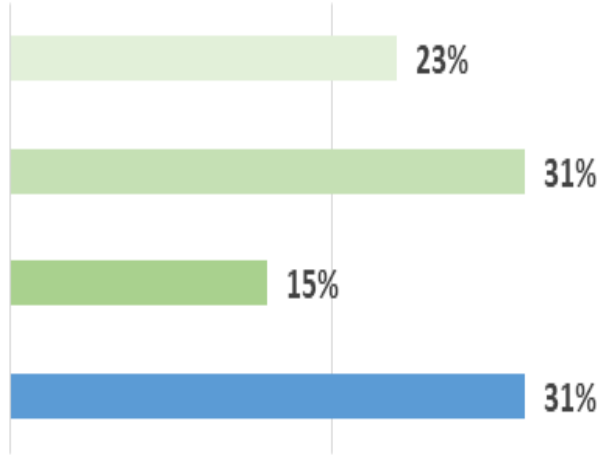
5-10 years	6 (23%)	> 10 years	20 (77%)
- Clinician	3	- Clinician	14
- Pharmacist	2	- Pharmacist	5
- Researcher	1	- Hosp.manag.	1



swissnoso

# Participant Hospital size (beds)
N=26

<200 beds	6	23%
200-500 beds	8	31%
>500 other	4	15%
Unispital	8	31%



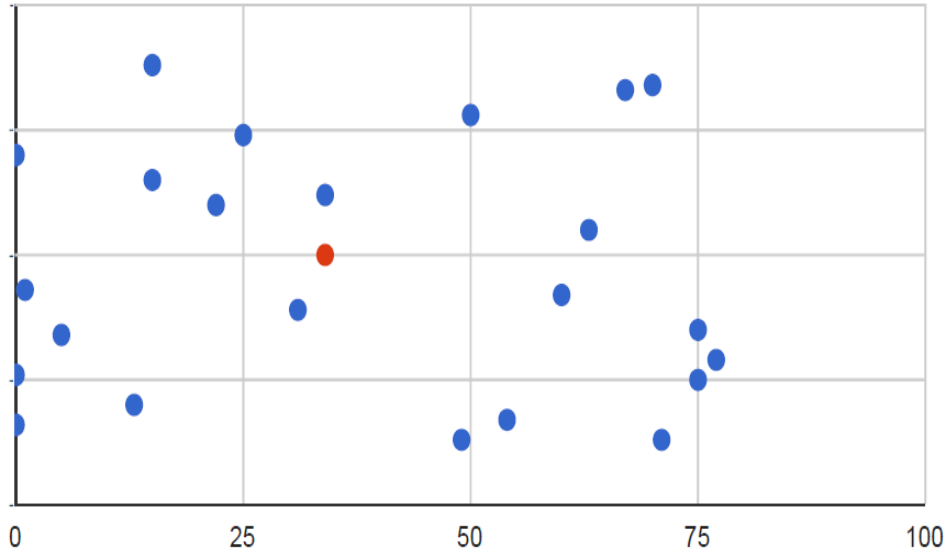
** 6 participants*
from 3 different hospitals
(2 each)

Participants and QI audit

Level of experience with QI audit in HC?

[Scale 1-100] Beginner – average – advanced

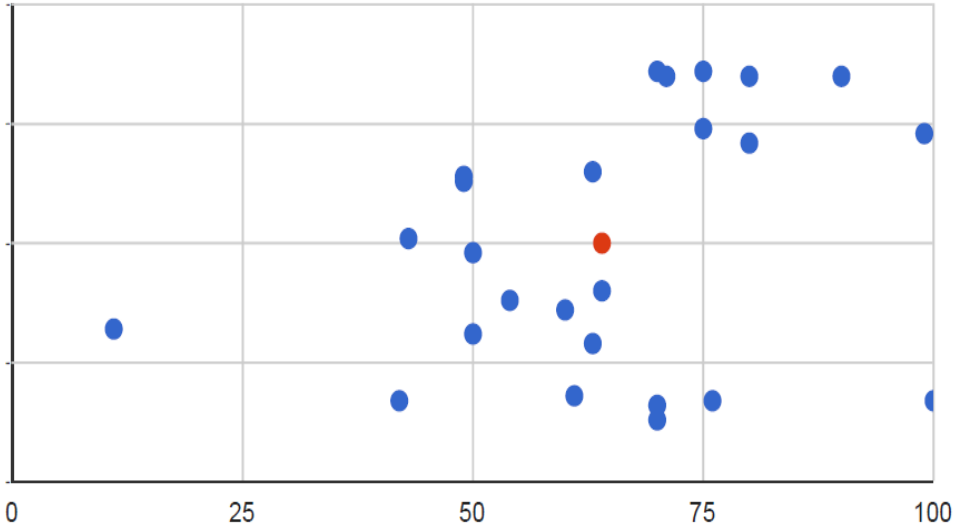
N=23, median 34%



How useful do you find QI/audit in HC?

[Scale 1-100] Little use – moderately useful – very useful

N=25, median 64%



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Perceived QI hospital’s experience/attitudes in QI audit

Level of your local hospital's experience in QI audit?

[Scale 1-100] Beginner, average, advanced, N=24

Median 52%

How welcoming your hospital management towards QI audit in stewardship?

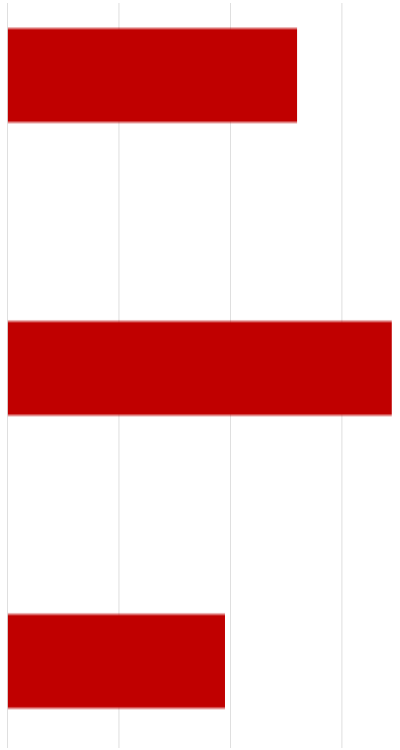
Median 69%

[Scale 1-100] Little, average, very welcoming, N=24

Level of your local stewardship team's experience in QI audit?

[Scale 1-100] Beginner, average, advanced, N=26

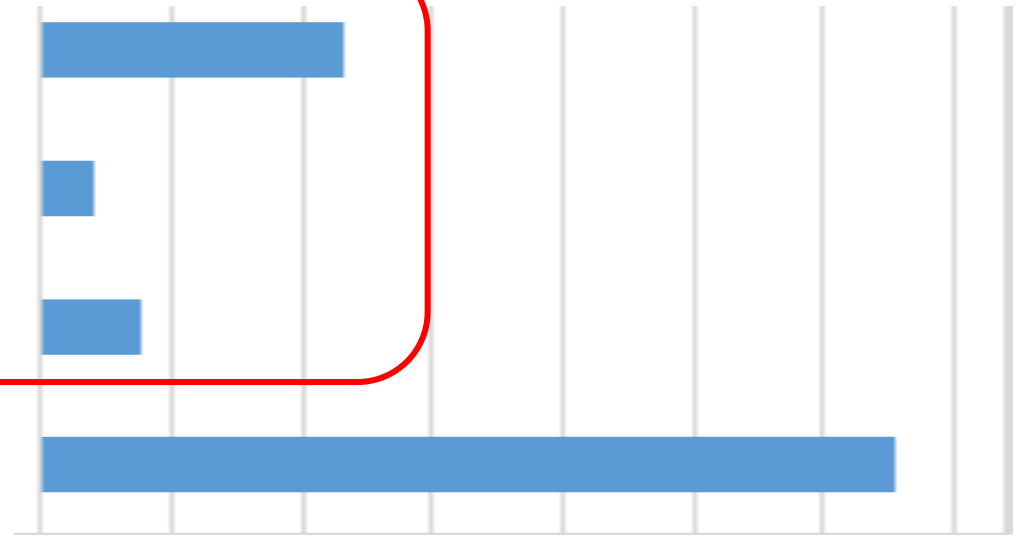
Median 39%.



Specific QI audit (SwissASP vs. previous)

Total of n=9 (35%) participants with QI audit experience

SwissASP QI audit – completed	0	(0%)
Previous QI audit	6	(23%)
Both SwissASP & previous	1	(4%)
SwissASP QI audit – not completed	2	(8%)
No QI audit experience	17	(65%)



n=26

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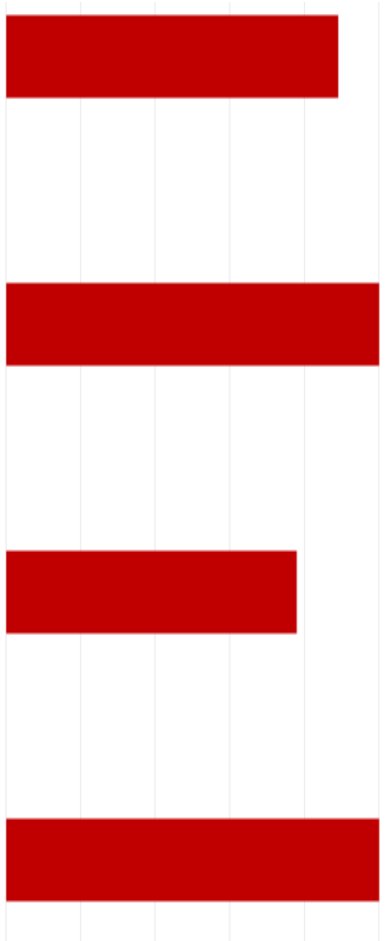
Planning and preparing the QI audit 1

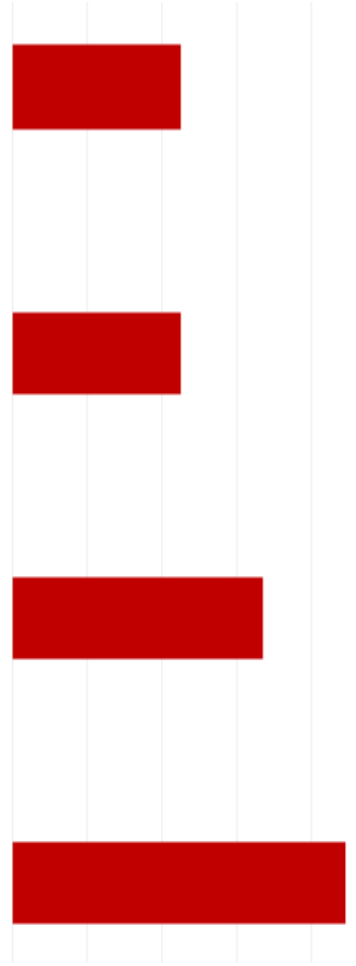
		Yes (%)
Hospital management supportive of idea *n=9*	8	(89%)
My line manager(s) supportive of idea *n=9*	9	(100%)
Relevant other relevant teams supportive of idea *n=9*	7	(78 %)
Majority of my own team supportive of idea *n=8*	8	(100%)



N=9, from: 2x Pharmacists, 7 Physicians; UK(mid-size), USB, UKBB, Biel, KtZürich, Solothurn, Lurzern CHUV, HUG, EOC

Planning and preparing the QI audit 2

		Yes (%)
Sufficient time to adequatly prepare myself *n=9*	4	(45%)
Our team - sufficient time to adequatly prepare *n=9*	4	(45%)
Sufficient IT resources to adequately prepare *n=9*	6	(67%)
Sufficient IT skills to adequatly prepare *n=9*	8	(89%)



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QI planning &preparing

Positive points

QI - similar to approach in bacteriology lab

Good engagement of clinical teams (surgery & ortho); **at least *formal* executive support**

Project received good **welcoming from the different stakeholders.**

Preparation important to start/finish projects**, align coworkers with anticipated goals**

ASM **team planning to further develop program**

Experience during specialist training in NHS England: QI audits given high priority and are important part of the anglosaxon working culture, beyond AS, any specialty/size hospital

Challenges

Insufficient staff/time/ID specialty knowledge

Time-consuming- especially **when planning feedback loop to clinical team and hospital management early** on.

Lack of resources, particularly during COVID

Involving **many stakeholders**; **heterogeneity** of **computer systems**, local/regional hospital **antibiotic policies, medical files, prescription** systems- **unit organisation across participating hospitals- required individualization of modalities of the intervention**

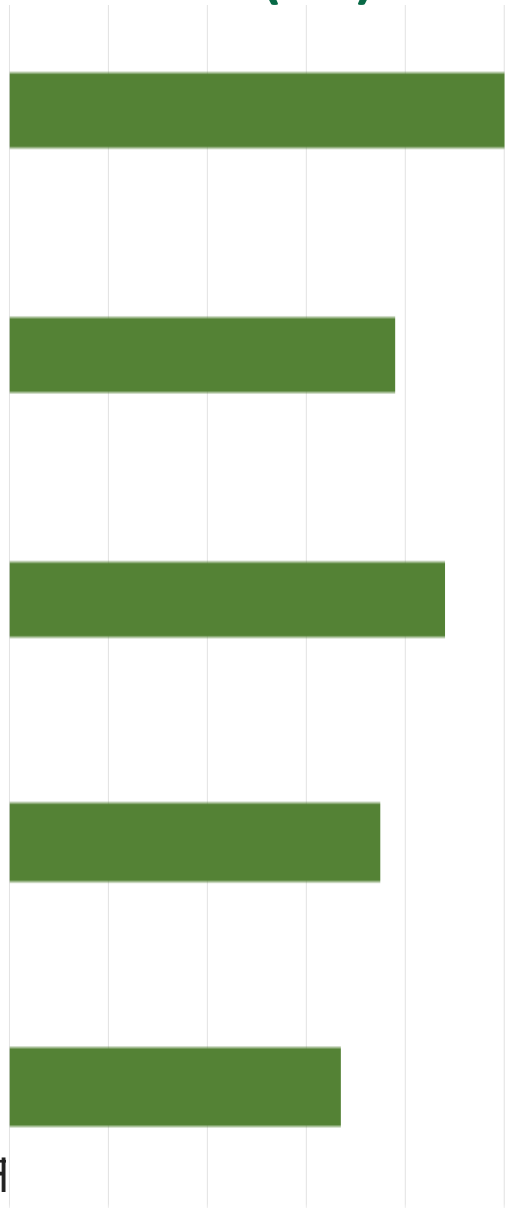
Experiences in England: despite commitment to QI, **often insufficient local coordination (e.g. regarding priority areas/topics**) → Risk of becoming a **tickbox/rubberstamping exercise**

QI planning &preparing

Your action/ideas	Suggestions to Swissnoso
Form a **long-term group of physicians/nurses, local/regional networking**; **add QM in teaching of nurse/clinicians of all departments** **Compiling existing sources of information**; Plans to use information available in **clinical management system for timely evaluations**. **Just do it. Use & adapt any tools you can find. Any information is better than no information.** **Provided written and verbal information** to medical staff on **units involved 1 week before stewardship intervention** Apply for **internal funding**	**Recommendations on homogenised antibiotic prescription guidelines** **Expand ID prescription guidelines; specialist articles for Swiss Hospital Physicians on ASP; platform for ASP Swiss hospitals without dedicated resources can turn to.** **Hospitals should be mandated or strongly encouraged to support AS in all domains (staffing, IT, financially) for audit to become more feasible and ongoing- Swissnoso support as part of minimal standards?**

Conducting your QI audit (in the past or currently)

		Yes (%)
Adequate acess to relevant patient data *n=9*	9	(100%)
Adequate acess to relevant prescription data *n=9*	7	(78%)
Data entry into database sufficiently easy *n=8*	7	(88%)
Data summary sufficiently easy *n=8*	6	(75%)
Able to confirm or, identify lack of good practice *n=9*	6	(67%)



N=9, from: 2x Pharmacists, 7 Physicians; UK(mid-size), USB, UKBB, Biel, KtZürich, Solothurn, Lurzern CH

Conducting the QI audit

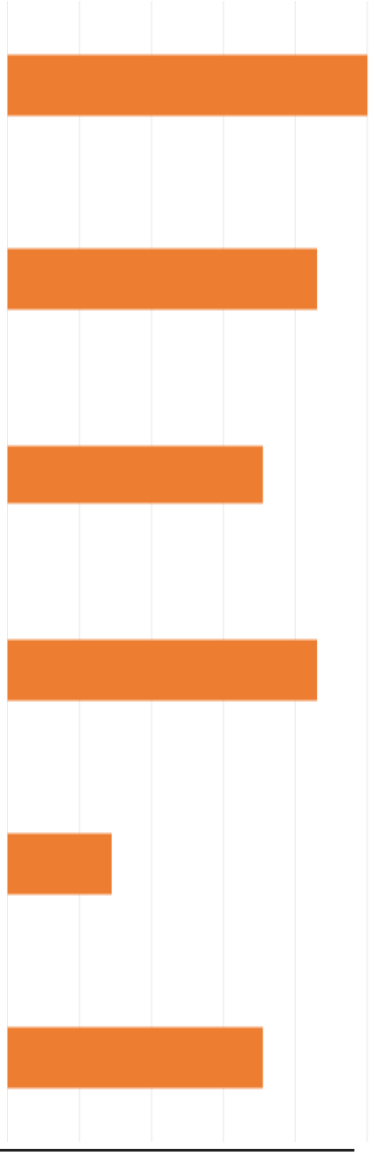
Positive points	Challenges
	Prescription audit needs somebody with experience (software cannot do the work)
	No automated data collection → takes time to get information on perioperative prophylaxis. Senior surgeons not available for feedback, unsure about priority given by dept lead.
	Found prescribing practice inconsistent with guidelines; rapid turnover of junior doctors requires repeating key messages/teaching on AB prescribing; multiple teams further dilute prevention messages.

Conducting the QI audit

Your action/ideas	Suggestions to Swissnoso
Incorporate relevant audit tools into new Hospital Information System for (at least partial) support of **automated data collection**. **More transparency- use periodic Quality reports to show your benchmarked data. Periodic reporting to hospital executives.** **To hire dedicated staff; Team to work with end-users** as part of the project, under **support by the hospital direction.** **Challenges led to meeting with some head physicians to discuss updates of existent protocols.** Internal meeting/teaching rounds - opportunities for productive discussion of findings specific to each unit and changes in some practices concerning prescribing. **Overcome challenges by offering regular discussions, inputs on prescriptions and continuing education.**	**Provision of data tools for typical audits, so that there is no need to resort to excel or similar :-)** **To support provision of dedicated resources, if feasible manpower, QI audit templates, a Swiss guidance to reach homogeneity in data collection and interventions.** **To improve impact of proactive interventions adapted to type, size, organization of ward or the availability of an ID specialist.**

Communication/interventions following your QI audit

		Yes (%)
Findings communicated to relevant teams *n=8*	8	(100%)
Findings communicated to relevant line managers *n=7*	6	(86%)
Findings communicated to hospital/quality managers *n=7*	5	(71%)
Findings to lead to interventions at operational level (team awareness about prescribing) *n=7*	6	(86%)
Findings lead to negotiating more/better resources for antibiotic stewardship *n=7*	2	(29%)
My expectations from QI audit have been/will be met *n=7*	5	(71%)



N=9, from: 2x Pharmacists, 7 Physicians; UK(mid-size), UKBB, Biel, Solothurn, Lurzern CHUV, HUG, EOC

QI audit findings- communication/interventions/expectations met?

Positive points

Much better interaction with the surgical and orthopaedic teams with more rigorous application of local guidelines for perioperative prophylaxis.

Challenges

Communication to the hospital management in a way that easily demonstrates the value of the audit has been difficult.

The rapid turn-over of medical teams.

Implementation of intervention and measure of their impact in the real world setting

QI audit findings - communication/interventions/expectations met?

Your action/ideas

Results presented

- by **oral presentations during medical rounds**, by **written report to medical directors and head physicians**
- Via a **dedicated website (www.objectif-preservation-antibiotiques.ch)** to communicate some monthly results.

Presentation of the results to end-users; **training of end-users** Make end-users part of the team. **Have dedicated people to implement interventions**. Use **electronic patients files to measure impact** of an intervention

Suggestions to Swissnoso

Tricky - but perhaps **offering space for sharing of ideas on how to engage with hospital management including templates could be helpful.**

Provide manpower if feasible; **support for dissemination of results locally and at the national level**

Physicians and pharmacists across Swiss hospitals

- >75% senior positions
- >1/3 have QI audit experience

Some places: Good experience w. QI-„just do it“. Others keen to learn…

Ongoing challenge include: Dedicated staff, time, IT, resources; also: negotiating with management for more.

Importance of local champions, ownership, good communication and local/regional groups for ASP

SwissASP to further expand ASP/QI support for local leads across Switzerland

Conclusion – v. useful feedback (limitation: survey not representative for CH)