Perceived Barriers and Facilitators to Quality Management of Infection Control Among Infection Control Practitioners

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QUALITY MANAGEMENT OF INFECTION CONTROL

Abstract

To increase quality of infection control in acute care hospitals in the Netherlands, a better understanding of infection control practitioners’ (ICPs’) perceived barriers and facilitators to quality management of infection control is necessary. Six ICPs working in an acute care hospital in the Netherlands (approx. 700 beds) took part in a focus group interview. Qualitative analysis of the focus group transcript characterized participants’ perspectives. The transcript was coded inductively for thematic development. Related codes have been merged into themes and latterly the themes were assigned to be either a barrier or a facilitator to quality management of infection control. Ten themes were identified as barriers: clinical staff do not consistently assume responsibility for infection control; ICPs’ trainings are considered boring; clinical staff sometimes react to ICPs’ feedback in an uncooperative manner; sanctions policy is not executed in practice; ICPs struggle with duplication of work; quality measures of the Netherlands Health and Youth Care Inspectorate are considered an obligation; top hospital leaders are not engaged with ICPs’ work; ICPs can only give delayed feedback on prevalence and incidence; the electronic health record of the hospital is not connected to ICPs’ files; and the software to perform audits does not allow to weigh the scores for different parts of an audit. Six themes were identified as facilitators: patience and thick skin; being critical, objective, consistent, and responsible; being on site and visible; the ICPs team is always reliable; purposeful use of blinders; and a clear distribution of responsibility to exercise control. Implications of the results are that all clinical staff working in the hospital need to assume ‘ownership’ for infection control efforts; ICPs should foster a relational leadership style; quality measures of the Netherlands Health and Youth Care Inspectorate should be upgraded; and adaptations in the hospital ICT infrastructure should be considered.

Keywords: infection control, healthcare-associated infections, antimicrobial resistance, quality management, eHealth
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Introduction

Healthcare-associated infections (HCAIs) are a global patient safety challenge (Allegranzi et al., 2011). HCAIs are infections acquired by patients during their stay in a hospital or another healthcare setting. The prevalence of patients with at least one HCAI in acute care hospitals in Europe is 6.0%, ranging between countries from 2.3% to 10.8% (European Centre for Disease Prevention and Control, 2013). In the Netherlands, HCAI prevalence among inpatients is 5.5% (PREZIES, 2017). It is estimated that 55% to 70% of HCAIs may be preventable with current evidence-based strategies (Umscheid et al., 2011).

There has been an increase in the proportion of organisms that are difficult to treat associated with antibiotic resistance. The number of multi-drug resistant organisms (MDROs) has increased steadily over the last decades (World Health Organization, 2014). Antimicrobial resistance (AMR) is an ever-growing threat to national and international public health. Therefore, the achievements in clinical medicine of the last century, including safer childbirth, surgical procedures, organ transplantation and cancer treatment, can no longer be taken for granted (Marston, Dixon, Knisely, Palmore, & Fauci, 2016). It is conceivable that the 21st century will become a post-antimicrobial era in which common infections can kill (World Health Organization, 2014). AMR is already associated with about 25,000 deaths annually in the EU (European Commission, n.d.). Patients with infections caused by microorganisms resistant to antimicrobial drugs generally have worse clinical and economic outcomes than patients infected with the same microorganism not demonstrating the resistance pattern in question. AMR is next to an increase in mortality associated with an increase in morbidity, prolonged length of hospitalization and higher health-care costs (World Health Organization, 2014). Preventing infections and therefore reducing the need for antimicrobials curtails the emergence and spread of AMR.

In the Netherlands, infection control practitioners (ICPs) (Dutch: deskundige infectiepreventie) are nurses or other professionals with equivalent education who are specialized in the field of prevention, detection and elimination of HCAIs (Vereniging voor Hygiëne & Infectiepreventie in de Gezondheidszorg, 2016). The task of ICPs is to advise clinical staff about infection control policies in order to protect patients and hospital staff. They try to find sources and routes of relevant microorganism transmission and develop and implement strategies to minimize transmission. Infection control practitioners work in a multidisciplinary team and are, inter alia, in contact with clinical microbiologists. Whenever a MDRO is found by a clinical microbiologist in the laboratory, ICPs need to get this information to advise professionals working in the respective ward about necessary
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precautions to take per patient. Generally speaking, ICPs work in the field of quality and safety management. Quality and safety management in hospitals includes all the procedures explicitly designed to monitor, assess, and improve the quality and safety of care (Wagner, Coppen, & Poortvliet, 2006). A fundamental element of quality and safety management is monitoring and analyzing quality measures (Wagner et al., 2006).

Donabedian (1997), a pioneer in evaluating quality of care, divided quality measures into three categories: structure, process, and outcome. Structure describes the attributes of the settings in which care occurs, including material resources, human resources, and organizational structure (Donabedian, 1997). In the context of infection control, a possible measure would be the existent number of disinfectant dispensers. According to Donabedian, process describes the interaction between caregiver and patient. Testing incoming patients for MDRO, is a possible example in the context of infection control. Outcome describes the effects of care on the health status of patients and populations, which is in the context of infection control commonly measured by incidence and prevalence of relevant diseases and infections (Donabedian, 1997).

In ICPs’ daily work information and communications technology (ICT) is omnipresent. ICPs perform, for example, audits by means of programs on the iPad. The use of ICT, internet-technology in particular, to support or improve health and healthcare is described with the term eHealth or electronic Health (van Gemert-Pijnen, Peters, & Ossebaard, 2013). In the development of eHealth, it is crucial that technologies work according to users’ expectations, because otherwise they are most likely to be inefficient (van Gemert-Pijnen et al., 2013). Therefore, ICPs’ perceived barriers and facilitators concerning eHealth need to be explored.

The purpose of this research was to explore ICPs’ perceptions of barriers and facilitators to efficiently and effectively performing quality management in their daily work. Therefore, the question that this research addressed was: What are infection control practitioners’ perceived barriers and facilitators to quality management of infection control?
Method

Participants

One focus group was held in April 2018 at a general hospital in the Netherlands (approx. 700 beds). Six ICPs (six women, \( Mage = 41.2 \) years, age range: 34-45 years) working at the hospital took part in the focus group interview. The average tenure in their current position was 4.7 (range 1-12) years, and experience as an ICP ranged from 2 to 12 years. The focus group was conducted in Dutch, which was spoken by all participants. Written informed consent was obtained from all participants, see Appendix B. None of the participants received a reward for their participation.

Materials and Procedure

A convenience sample of ICPs was recruited at one general hospital in the Netherlands (Polit & Beck, 2004). This research is part of and contributes to a European funded (EurHealth-1-Health) PhD study of researcher JK. The PhD study focuses on the support of healthcare workers to optimize safety stewardship to limit HCAIs and AMR (Keizer, n.d.). Since this research is part of an ongoing PhD study, all participants already took part in previous research by JK. Contact to the participants was, therefore, already established. JK announced the idea of a focus group in conversations with the coordinator of the ICPs at an early stage. Subsequently, the prospective participants have been reached via e-mail. An official invitation letter was sent two weeks before the day of the focus group. Procedures to maintain anonymity and confidentiality of the participants were described and an informed consent form was attached. Also, a short questionnaire asking for the age of the participant, time of employment in the current position and time of employment as ICP in general was attached. The invitation letter was sent to nine employees of which seven were working as ICPs and two were working as secretary. Of the seven ICPs, six replied to the email by sending back the informed consent and questionnaire. These six ICPs ultimately took part in the focus group. The focus group took place at the day-to-day workplace of the participants to keep the physical and mental burden low. Second researcher JK was the moderator of the focus group.

During the focus group, the research team made use of an online program named PollEverywhere, which allows for the creation of real time polls and ranking of the given answers. The program was chosen to extend understanding and add depth to the questions. During discussions participants sometimes tend to digress from the topic of concern (Krueger,
The idea is that the program helps participants to focus on one question at a time and ultimately rank the given answers. Even though it is not the aim of a focus group to reach a consensus (Krueger, 1994), the program allows to get an idea of the perspectives that are regarded as most important by the audience. The participants were informed beforehand to bring a cell phone, tablet computer or laptop. The questions of the polls were presented with a projector to the audience.

A semi-structured questioning route was developed, which can be found in Appendix A. The questioning route has a relatively strict structure regarding the order of the questions as well as the timing. However, participants were encouraged to talk to each other and the moderator of the focus group aimed to facilitate the discussion, rather than to direct it. The questioning route is divided into six parts. At the beginning, moderator JK started the focus group with two introductory questions, which form part one. The following three parts are divided into the main activities of quality management in ICPs’ work (Vereniging voor Hygiëne & Infectiepreventie in de Gezondheidszorg, 2016). To structure the focus group the simplest division of activities was considered appropriate. In practice, more elaborate quality management cycles are used, for example the famous plan-do-study-act method (Taylor et al., 2013). The first activity was measuring the quality which entails all activities in which ICPs check if infection control tasks are performed appropriately. The second step was to analyze everything that was measured, and the third activity was to give feedback to the respective staff. Following this, participants took a 5-minute break. The fifth part was about new quality measures and had first to be answered in PollEverywhere. The question was: “What quality information do you think is important?” Subsequently, each participant voted on the three answers she regarded as most important. JK finished the focus group with two concluding questions.

All data was treated in strict confidence and participants are not named in any written work which arose or will be arising from this study. All data collected was used solely for research purposes and only discussed within the research team. The ethics committee of the Faculty of Behavioural, Management and Social Sciences approved this study (Requestnr. 18217). Even though the focus group was conducted in a hospital, it was not necessary to obtain ethical clearance from a local medical ethical committee, because the research was part of an ongoing PhD study that held adequate ethical approval.
Analysis

The focus group interview was recorded and transcribed verbatim. The transcript has been anonymized, so that all mentioned names, dates and places are removed or replaced. Afterwards, the transcript has been imported in ATLAS.ti, version eight. In ATLAS.ti the qualitative data was coded inductively, which means that the codes are obtained gradually from the data (Pope, Ziebland, & Mays, 2000). At first, the transcript was read freely, then initial codes were created. This iterative process was run through many times and codes have been revised again and again. Related codes were then merged into themes. Finally, the themes were assigned to be either a barrier or a facilitator. As a matter of course, there were fragments which were not relevant. These fragments were coded with the code ‘not relevant’ and discarded afterwards.
Results

The ICPs’ narratives documented that multiple barriers and facilitators to efficient and effective quality management of infection control exist. A total of ten themes were extracted that represented barriers and six themes that represented facilitators to quality management. These themes are represented in Tables 1 and 2 along with illustrative quotes.

Perceived Barriers

Table 1
ICPs’ Perceived Barriers to Quality Management of Infection Control

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Illustrative Quotes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical staff do not consistently assume responsibility for infection control</td>
<td>“Ja, de bewustwording bij de medewerkers creëren, dus waar we heel erg hard aan gewerkt hebben de laatste tijd is inderdaad dat wij niet diegene zijn die infectiepreventie doen maar dat iedereen dat doet.”</td>
</tr>
<tr>
<td>ICPs’ trainings are considered boring</td>
<td>“Maar ja goed, we zijn ook bij scholingen, we zijn natuurlijk niet het leukste onderwerp”</td>
</tr>
<tr>
<td>Clinical staff sometimes react to ICPs’ feedback in an uncooperative manner</td>
<td>“En daar zijn specialismen bij, als ik daar wat aan terugkoppel, dan krijg ik mailtjes terug waarom krijg ik dit en wie ben je eigenlijk.”</td>
</tr>
<tr>
<td>Sanctions policy is not executed in practice</td>
<td>“Dus ik bedoel daar wordt misschien wel eens wat aan getipt maar het is een papieren tijger dat beleidsstuk ja.”</td>
</tr>
<tr>
<td>ICPs struggle with duplication of work</td>
<td>“-Maar hoe veel dubbel werk we wel doen. - We zijn echt inderdaad qua administratie gewoon. -Ja enorm druk.”</td>
</tr>
<tr>
<td>Quality measures of the Netherlands Health and Youth Care Inspectorate are considered an obligation</td>
<td>“We zijn net getoetst door de inspectie en ja dat is een heel grote leidraad omdat we moeten. Kan ik heel kort over zijn.”</td>
</tr>
</tbody>
</table>
Top hospital leaders are not engaged with ICPs’ work

“Het [infectiepreventie] is een heel belangrijk item voor een ziekenhuis, maar de Raad van Bestuur kent ons niet.”

ICPs can only give delayed feedback on prevalence and incidence

“Maar wat daar dan ook lastig is, als ik spreek van de infectieregistratie is inderdaad dat je soms pas een hele tijd later met cijfers terug kunt komen.”

The electronic health record of the hospital is not connected to ICPs’ files

“Net zoals isolatieoverzichten, dat zou je in principe in het EPD of in ieder geval in HIX gewoon direct moeten kunnen zien, een overzicht in plaats van dat we het nu in moeten kloppen en afhankelijk zijn van die informatie wat wij uit de organisatie krijgen.”

The software to perform audits does not allow to weigh the scores for different parts of an audit

“Nou, dat vind ik persoonlijk een manco in dat Checkbuster systeem, want je krijgt een rapportcijfer van je audit waar elk item scoort -Weegt even veel. -Ja, weegt even zwaar. Terwijl wij natuurlijk wel dingen kritisch of minder kritisch vinden.”

Clinical staff do not consistently assume responsibility for infection control. ICPs stated that clinical staff do not consistently feel the necessary responsibility to accomplish infection control tasks, which in their opinion should be an integral part of all clinical staff’s work. Therefore, ICPs regard it as crucial to remind colleagues about their individual as well as their common responsibility. One participant did not mince words:

“Het is geen feestje van infectiepreventie. Wij bedenken al die regels niet en dat beeld bestaat bij sommige dingen nog wel. En dat is wat je wilt overbrengen van dat is integraal onderdeel van je werkzaamheden. Dat is niet iets wat extra is. Het hoort er gewoon bij. Het dragen van handschoenen op de juiste momenten hoort er gewoon bij. Heel simpel, bij de OK werd mij gezegd door een anesthesioloog toen ik daar voor het eerst kwam, infectiepreventie op de OK ja dat is allemaal niks hè. En dan denk ik, oké ik kan daar met jou in discussie gaan, maar jij gaat even voorbij aan het feit, dat puur het feit, dat die instrumenten gesteriliseerd worden, dat dat ook infectiepreventie is.”
ICPs’ trainings are considered boring. Assuming responsibility is aggravated by the circumstance that ICPs’ trainings are often considered boring by clinical staff. The reason for this is that the subject matter of trainings is for example to wash one’s hands, which everybody knows in theory but not always does in practice, and therefore has to be explained over and over again. ICPs experience this as challenging but are fully aware about that condition:

“Het is vaak droog en mensen vinden niet altijd even interessant wat je te vertellen hebt en toch moet het. Ik bedoel, ik moet ze dan gaan vertellen dat ze hun handen moeten wassen, dat weet natuurlijk iedereen wel. Maar dat moeten we toch gaan vertellen. [...] Maar ik sta daar dan zelf ook aan een beetje met hoe zal ik dit nou nog eens leuk maken. Ja, dat is lastig.”

Clinical staff sometimes react to feedback in an uncooperative manner. ICPs confided that clinical staff handle feedback in very different ways. Some disciplines are cooperating, while other disciplines do not even know what feedback they get. Sometimes, ICPs have to deal with undesirable behavior in the form of offensive and outrageous comments:

“-Sommige staan daar heel erg open voor en ook sommige unithoofden staan daar zeker wel open voor, en die gaan daar ook heel actief mee aan de kant maar zeker van individuele medewerkers kun je ook reacties krijgen, jij bent mijn baas niet.
-Wie denk je wel dat je bent, om het over mij te zeggen.”

ICPs, also, experienced to be sent away by doctors. When asking ICPs if they find it tough to deal with such behavior, ICPs answered that they get used to it:

“Nee, ja, weet je, het wordt een beetje, het wordt, ja is een beetje, klinkt misschien heel stom maar het wordt een beetje onderdeel van je vak.”

Also, ICPs recounted that there are situations in which their expertise is not accepted by colleagues from other disciplines. In these situations, they are dissatisfied with the way they are treated. They would like to be treated with more respect and acceptance of their expertise. This was illustrated by an ICP who recalled a situation in which she felt rejected:

“Dat mensen eerder een patiënt geloven die zegt dat die bijvoorbeeld al lang MRSA negatief gekweekt is en ons dan bellen jullie moeten dat label daar afhalen, want die
Furthermore, all healthcare professionals at the hospital had to take a training on the right way of giving feedback. ICPs, however, question the implementation of the training in daily work.

**Sanctions policy is not executed in practice.** The hospital exercises a sanctions policy which allows heads of unit to impose penalties in the form of yellow and red cards. Employees who do not adhere to infection control policies can get such a penalty which, in the worst case, leads to dismissal. However, ICPs considered the implementation of this policy as inadequate and described the policy as a paper tiger, since hardly any sanctions are executed. One interviewee expressed great dissatisfaction with the policy:

“Maar wat ik wel zelf heel lastig vind is dat er geen sanctie is als je het niet goed doet.”

**ICPs struggle with duplication of work.** ICPs disclosed that they are really busy in their daily work. The main reason for this is a huge number of administrative tasks and that they have to deal with duplication of work:

“Dus ja wij controleren heel veel personen en bestanden om te zorgen dat wij een soort dubbelcheck uitvoeren, terwijl dat eigenlijk niet echt nodig is, maar gewoon puur om grip te houden.”

Therefore, ICPs experience a lack of time to perform elaborate analyses, especially in the period of an MDRO outbreak. If their administrative tasks were not generating such an amount of stress, ICPs would like to keep record and create statistics about incoming and outgoing patients.

**Quality measures of the Netherlands Health and Youth Care Inspectorate are considered an obligation.** All hospitals in the Netherlands have to measure the quality of their delivered care based on quality measures drafted by the Netherlands Health and Youth Care Inspectorate (IGJ) (Health and Youth Care Inspectorate, 2016). The job of the IGJ is to supervise and monitor the quality and safety of care in hospitals (Health and Youth Care Inspectorate, 2017). Considering infection prevention, the IGJ works with an assessment framework consisting of forty-eight quality indicators, divided into eight domains (Health and
QUALITY MANAGEMENT OF INFECTION CONTROL

Youth Care Inspectorate, 2016). The domains are work clothes, hand hygiene, other general precautionary measures, cleaning and disinfection, isolation, risk inventory MDRO/MRSA, antibiotic policy, and quality management systems. The indicators vary in specificity from more general to more specific indicators. “All staff which are in contact with patients are wearing sanitary clothing”, is an example of a more general indicator. “The pressure in the isolation room is monitored”, represents a more specific indicator.

ICPs consider the framework as an important guideline, which is omnipresent in their daily work during periods of a prospective inspection. During other times, ICPs also have to follow guidelines drafted by the IGJ. However, one participant highlighted that ICPs work with the framework for one reason, because they have to:

“We zijn net getoetst door de inspectie en ja dat is een heel grote leidraad omdat we moeten. Kan ik heel kort over zijn.”

Top hospital leaders are not engaged with ICPs’ work. ICPs think that senior executives do not know who ICPs are. They advocate that executive leaders get to know them:

“Kom eens een keer praten met je deskundigen infectiepreventie. Niet via managers, niet via cijfers, maar echt horen wat er speelt. Het is een heel belangrijk item voor een ziekenhuis, maar de Raad van Bestuur kent ons niet. Gek en gemiste kans.”

ICPs can only give delayed feedback on prevalence and incidence. ICPs elucidated that the prevalence of HCAIs and the incidence of surgical site infections and intravascular catheter-related infections are measured within the framework of the Dutch national HCAIs surveillance system PREZIES (Netherlands National Institute for Public Health and the Environment, n.d.). ICPs see need for improvement in this surveillance system. They criticize that they can only give delayed feedback on prevalence and incidence to doctors and managers. Hospital-wide point-prevalence surveys of HCAIs are, for instance, conducted just twice yearly (Netherlands National Institute for Public Health and the Environment, n.d.). Communication about these rates is difficult since doctors do not see the value of obsolete rates. In the words of one ICP:

“Maar wat daar dan ook lastig is, als ik spreek van de infectieregistratie is inderdaad dat je soms pas een hele tijd later met cijfers terug kunt komen. [...] En dat maakt het
Furthermore, measuring the prevalence of HCAIs still needs to be done manually on paper and has to be transferred subsequently to PREZIES. However, the incidence of surgical site infections and intravascular catheter-related infections is monitored digitally.

The electronic health record of the hospital is not connected to ICPs’ files. A barrier which received great attention in the focus group is that ICPs’ files and the hospital electronic health record are not linked together:

„-Ik zou graag meer gelinkt willen zijn aan het EPD.
-Ja, heel graag.
-Dat is volgens mij wat wij allemaal.“

This desire was also voted first by the participants in the ranking to the question on PollEverywhere “What quality information do you think is important?” This stresses the priority ICPs gave to the topic of a well working electronic health record.

The problem in the current situation is that ICPs do not get any alerts or notifications without requesting them. Particular important information which ICPs would like to get automatically are laboratory results, especially if an MDRO is found. Linking ICPs’ files and the electronic health record together could make work for ICPs and clinical staff more efficient since linked files would make automatic notifications possible. This would save a lot of time that ICPs could use to focus on tasks they do not have time for at the moment. ICPs for example would like to create summaries and statistics of incoming and outgoing patients. Moreover, it is not only ICPs work which could be more efficient. Doctors and nurses could also save time, since they would not have to write e-mails to ICPs if, for example, an MDRO positive patient is admitted. Linking the files together could thus reduce dependencies and duplication of work which in turn might make ICPs’ work less prone to error. The reason for this is that if notifications have to be done manually by staff, the chance exists that staff forget about sending the notifications. In the worst case this leads to patients which are not isolated in time. ICPs are aware of this fact and try to reduce the chances by checking a lot of files on their own which generates excessive workload and leads to stress. Automatic notifications would make checks by ICPs unnecessary. Furthermore, the current situation in which ICPs save Microsoft Word and Excel files on a network drive would probably not withstand any privacy and data security assessments. Obviously, the general health record was built taking
all privacy regulations into consideration. Linking ICPs’ activities to this record could generate an unambiguous situation considering privacy and data security regulations.

**The software to perform audits does not allow to weigh the scores for different parts of an audit.** ICPs use an online program on their iPads which is called Checkbuster to perform audits. An audit is a systematic examination of various conditions in a department. Audits are composed of different parts and for the respective staff, working in the department, it is more or less difficult to accomplish a good grading for the different parts. Checkbuster has a big disadvantage since it does not allow to weigh different parts of an audit. Everything that is checked in an audit has the same level of importance. ICPs, however, regard some parts as more important than other parts. Therefore, ICPs do not agree with the grade Checkbuster comes up with:

> “Je krijgt wel een rapportcijfer, maar als daar soms een 8,6 staat dan kan ik toch even goed vinden van ja ik ben nog niet zo gelukkig. En dat vind ik best lastig dat ik een 8,6 zou moeten sturen naar een afdeling, die dan denkt hé ik ben goed bezig, terwijl ik denk dat wil ik niet overbrengen.”

This is why ICPs try to highlight their own interpretation in place of the automatic grading Checkbuster assesses. Fortunately, it is possible to delete the grade in the program and give one’s own interpretation instead.

**Perceived Facilitators**

<table>
<thead>
<tr>
<th>Facilitators</th>
<th>Illustrative quotes</th>
</tr>
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<tbody>
<tr>
<td>Patience and thick skin</td>
<td>“Het is vaak een kwestie van langadem.”</td>
</tr>
<tr>
<td>Being critical, objective,</td>
<td>“En ook objectief blijven continu.”</td>
</tr>
<tr>
<td>consistent, and responsible</td>
<td></td>
</tr>
<tr>
<td>Being on site and visible</td>
<td>“Ik wil juist naar de werkvloer heen. Om dat het daar gebeurt en dat daar ook goodwill creëert. En dat je zichtbaar bent.”</td>
</tr>
</tbody>
</table>
The ICPs team is always reliable

**Purposeful use of blinders**

“We hebben ook een ontzettend leuk team.”

“We hebben ook een ontzettend leuk team.”

“Maar daar zijn ook wel eens momenten dat je het ziekenhuis inloopt en tenminste als ik voor mezelf spreek, bewust geen gegevens verzamelt hoor.”

Clear distribution of responsibility to exercise control

“Nou ik vind dat we dat iTask nou hebben. Dat vind ik wel heel goed. Want daar zit ook een vervolg systeem aan, ook voor de unithoofden. Anders blijft het liggen.”

**Patience and thick skin.** ICPs describe the kind of personality one needs to have to master the job. The vocabulary of “mastering the job” is chosen deliberately, since ICPs regard their job as a challenge in which ICPs have to assert oneself. Therefore, the personality is characterized by patience and thick skin. One respondent even defined it as the personality of a pit bull:

“En pitbull karakter zou ik zeggen. Gewoon niet opgeven. Ja, dat ontwikkel je door de jaren heen, hoor. Dat had ik helemaal niet zo, maar dat wordt het wel ja.”

**Being critical, objective, consistent, and responsible.** ICPs have a clear mission on how they want to do their job. Mission in this context can be defined as the way they want to act in their work, which is defined by principles that reached consensus. Of particular importance for ICPs is to be critical, objective, consistent, and responsible at all times. Being consistent means to speak and act in a coherent manner. With everything ICPs communicate they want to be consistent as a group. What one ICP says at one department should not contradict anything a colleague is communicating at another department. Being responsible means to stay involved with a problem until it is solved:

“Ja, soms kom je wel met een gevoel van een afdeling af dat je denkt, ja dat is hier echt zo gewoon niet in orde. En de bewustwording is zo ver weg. Dan kun je niet zeggen van nou scoren rood en hop ding in de kast klaar, volgend jaar weer. Dan is het echt de bedoeling dat, dat heb je bijvoorbeeld met XXX gehad dat je echt een hele periode lang heel veel aandacht geeft aan zo ’n afdeling om te zorgen dat wat niet goed is ook wel goed wordt.”
**Being on site and visible.** ICPs have a distinct idea of how they want to be seen by other staff. They want to be on site and thus be visible for colleagues. Being on site means being where infection prevention has to be done by other staff:

“Ik wil juist naar de werkvloer heen, omdat het daar gebeurt.”

ICPs realized that clinical staff develop feelings of being supported and benefiting from ICPs if they are visible:

“We hebben een periode gehad dat we echt veel minder op de afdelingen waren en dat als je kwam was het ook altijd ellende. Nu zijn we veel meer op de afdelingen, dus kom je ook, hebben ze meer het gevoel dat ze steun aan je hebben, dat je mee komt denken, in plaats van controleren. Dus daar is wel echt een positieve inhoudsslag in gemaakt.”

**The ICPs team is always reliable.** ICPs consider mutual coordination as important and are highly satisfied with the team spirit of their ICPs team. One participant answered to the question, what ICPs could do to improve the mutual coordination within their team, that the coordination is one of few things which is working very well. Another ICP detailed that ICPs support each other and feel responsible for one another:

“Zelfs als je dienst hebt in het weekeind, op zondagavond en ik heb wat en ik bel iemand direct krijg ik hulp, dus dat is echt top, toch?”

Physical presence of all team members is, however, regarded as crucial for successful coordination:

“Daar wordt zo veel tussendoor overlegd als je daar niet fysiek bij bent, dan mis je echt dat onderlinge overleg. Je kunt bijna niet bevatten hoe veel daar eigenlijk aan afstemming gebeurt. Dat is eigenlijk, off the record en buiten vergadering om gebeurt er nog heel veel in, dat is een continu proces.”

**Purposeful use of blinders.** ICPs experience situations in which they deliberately do not collect data. They condone undesirable behavior and do not approach colleagues:

“Maar daar zijn ook wel eens momenten dat je het ziekenhuis inloopt en tenminste als ik voor mezelf spreek, bewust geen gegevens verzamelt hoor. Dat je echt even oogkleppen opzet, dat je denkt van. Ja want je ziet gewoon overal, je bent doorlopend
Next to the information overload in the daily work environment, ICPs sometimes look away and do not approach staff concerning their undesirable behavior, since they do not regard it as the right moment, mostly because other people are around. As an example, ICPs do not want to blame staff in front of their superiors. To sum it up, ICPs try to foster collegial relationships instead of being seen as police officers.

One participant highlighted the fact that measuring quality data is a continuous process. ICPs always have notepads with them to be ready to note circumstances they observe and want to get back to later. If they observe undesirable behavior but do not want to approach the colleague immediately because it is not the right moment, they can still write it down on their notepads.

**Clear distribution of responsibility to exercise control.** ICPs are dependent on colleagues from other disciplines. There are two kind of colleagues which are of particular importance for ICPs, namely the head of unit and a link-nurse who is the liaison between ICPs and nurses. All audits performed by ICPs are published in a project management application called iTask. Every head of unit gets the results of the respective audit along with points of improvement. ICPs appreciate this system because they can control if action is taken by the head of unit. The link-nurse is present at the audit and builds a contact opportunity in both directions. ICPs are willing to help if the link-nurse has questions about the points of improvement. Thus, ICPs prefer a clear distribution of responsibility to be able to exercise control.
Discussion

‘Ownership’

From the findings of this study, ICPs believe that nurses and doctors do not recognize that infection control tasks are an integral part of their job. ICPs have the idea that clinical staff do not necessarily feel responsible for infection control. If this perception is correct, this could have clear implications for care quality and patient safety. Infection control tasks should be a matter of fact for everybody working in a hospital. It is not possible to assign infection control efforts to just one group of staff, since recklessness of other staff will lead to the spread of infections nevertheless. Therefore, clinical staff need to assume ‘ownership’ for infection control efforts. Ownership for infection control is defined as health workers’ autonomous ability to identify infection control problems in their own clinical service, find solutions and initiate change (Gould, Hale, Waters, & Allen, 2016). Prerequisites to achieve ‘ownership’ were identified as being vigilant to plan the changes needed to implement and sustain the policies, having access to information about infections, and being able to learn together in a no-blame culture (Gould et al., 2016). Charani and Holmes (2013) stress the need of nurses to take responsibility in infection control, since they make up the bulk of the healthcare work force.

Another reported problem was that nurses and doctors regard ICPs’ trainings as boring and repetitive. An interview study among nursing students and nurse mentors by Ward (2012) verified this view. Therefore, it may be necessary to elaborately tailor the content of the trainings to the audience’s needs, job duties, and educational level (Knapp, McIntyre, Sinkowitz-Cochran, & Pearson, 2008). Particularly, gaps in knowledge and gaps between knowledge and practice should be targeted. Positive attitudes of health workers towards infection control trainings could lead to a feeling of ‘ownership’ for infection control efforts which in turn might increase the odds that policies are integrated into clinical practice.

Relational Leadership

ICPs highlighted that they want to be responsible, on-site and visible at all times. They experienced that clinical staff develop a more positive attitude towards them if they are visible. Furthermore, they explained that they want to cooperate and help nurses if they have questions. ICPs stressed that they do not want to be seen as police officers, but as colleagues that are available if help is needed. Thus, ICPs focus on promoting a nonconfrontational image. ICPs described, probably unwittingly, characteristics of relational leadership.
Leadership is defined broadly as the ability to motivate others to pursue goals or tasks that they would not otherwise have wanted to pursue, would not have considered pursuing, or would not have felt themselves capable of completing successfully (Gabel, 2012). In this sense, ICPs can be regarded as leaders since they supervise and motivate nurses as well as doctors concerning infection control. Broadly, leadership can be defined as either relational or task-oriented (Wong, Cummings, & Ducharme, 2013). Relational leadership focuses on people and relationships whereas task-oriented leadership focuses on structures and tasks.

The relation between nursing leadership and patient outcomes was examined in a systematic review including twenty studies (Wong et al., 2013). The study found relationships between relational leadership and higher patient satisfaction and lower patient mortality, medication errors, restraint use, and HCAIs. Regarding HCAIs (pneumonia and urinary tract infections), two of three studies reported that relational leadership was associated with lower infection rates. Elements of relational leadership, such as approachability and availability, were also appreciated by nurses in a study by Houser (2003) about nursing demands at ward level. In a systematic review by Cummings et al. (2010), it was shown that relational leadership styles were associated with higher nurse job satisfaction. The findings of the current study indicated that ICPs already try to implement elements of relational leadership. However, ICPs also indicated that some staff are still not cooperating. Fostering relational leadership could improve the relationships of ICPs to all staff.

A recent qualitative study by Knobloch et al. (2018) explored unit-based leadership rounds that discuss HCAIs. Leadership rounds can be used to connect senior or executive leaders with frontline staff in a location where the work is done (Knobloch et al., 2018). In the study, ICPs and frontline staff took part in the leadership rounds led by hospital executives. The study found promising results for HCAIs leadership rounds. The main finding was that leadership rounds create a psychologically safe environment that assists in the adoption of infection control efforts to reduce the incidence of HCAIs. The study highlighted the concept of psychological safety which is defined as a shared belief that the team is safe to disclosure problems to superiors in the workplace (Edmondson, 1999). Knobloch et al. (2018) identified leader communication factors that contributed greatly to the promising results of the leadership rounds. Leaders’ ability to model curiosity and fallibility appeared to create an open learning climate and in turn psychological safety. These communication factors are also highlighted by Edmondson (1999) as critical factors to create psychological safety. The findings of Knobloch et al. (2018) have two implications for this study. First, leadership rounds could also be implemented in the hospital where the focus group was conducted to
create an environment that assists in the adoption of infection control efforts. This would be a great step since the participants of this study explained that hospital executives are not engaged with hospital staff. In the focus group, ICPs stated the desire that hospital leaders get to know them. The second implication is that acknowledging fallibility and modeling curiosity to frame the work as a learning situation are also promising communication factors that foster relational leadership to be adopted by ICPs (Leonard & Frankel, 2011).

Furthermore, the current study found that ICPs are dissatisfied with the presently exercised sanctions policy in the hospital. The question emerges how the implementation of the policy should be adapted. While ICPs would probably prefer a stricter policy in which sanctions are actually exercised in practice, current research explored less punitive approaches. Gould et al. (2016) undertook a retrospective, independent evaluation of an action plan to enhance infection control in a healthcare organization that provides acute care in four hospitals. The research team identified a positive response to the action plan through promoting a learning climate throughout the organization and the avoidance of punitive approaches. A possible explanation for their success might be that healthcare workers feel empowered to reach change rather than perceiving that change was enforced (Gould et al., 2016). Thus, these findings strengthen the implication that relational leadership could be a promising concept in infection control.

Quality Measures of the IGJ

The focus group interview showed that ICPs collect quality of care indicators mainly to fulfill external requirements of the IGJ. In times of a prospective assessment of the IGJ the framework is omnipresent in the hospital. The only reason for using it is however that ICPs have to do it. Interestingly, all indicators of the IGJ which assess infection control fall within the structure category according to Donabedian’s differentiation (Donabedian, 1997). The IGJ, therefore, lacks process and outcome indicators. To give ICPs the means to create a more elaborate picture of the quality of infection control, process and outcome indicators would be necessary.

Process and outcome measures have advantages and disadvantages one has to keep in mind before new indicators are added. Commonly used outcome measures include infection-related mortality, length of stay, rates of readmission, rates of clostridium difficile infection, and antimicrobial resistance rates (Khadem, Dodds Ashley, Wrobel, & Brown, 2012). However, even though clinical outcome measures are often already tracked in hospitals and data is therefore easy accessible, there is some concern about the question how clinical
outcome measures can be causally related to specific guidelines. Members of the Structured Taskforce of Experts Working at Reliable Standards for Stewardship (STEWARDS) Panel, for example, expressed concern about the ability to detect changes in clinical outcomes and then attribute this change directly to specific interventions. Also, panel members weren’t sure if clinical outcomes are sensitive enough to measure improvements in patient-level interventions, especially for rare outcomes such as death (Moehring et al., 2017). Process measures, on the other hand, are more appropriate to measure change and to relate this change to specific interventions. An often-used process measure is the change in amount of antimicrobial use (Khadem et al., 2012). This measure is easy to understand and interpret, but it also bears its dangers, since process measures are not always direct measures of quality of care. If, for example, antimicrobial use is decreased to zero, clostridium difficile infection rates may decrease significantly, but the initial infection that prompted the use of antimicrobials would not be adequately treated (Khadem et al., 2012). Improving infection control can be better organized if valid measures are available. Therefore, a sophisticated set of process and outcome measures or even associated process and outcome measures could improve work of ICP and in turn might improve quality of care and patient safety.

**eHealth**

The findings of this study show serious shortcomings concerning supportive eHealth in the hospital. The answers to the questions on PollEverywhere confirmed the high priority the interviewees assigned to ICT infrastructure. The most important identified barrier was that the electronic health record of the hospital is not connected to ICPs’ files. The solution to this barrier is consequentially: The files should be linked or even better ICPs should get a file about infection prevention in the electronic health record of the hospital. As already explained, this would make work for ICPs as well as nurses and doctors more efficient and less error-prone since it reduces dependencies and duplication of work.

The current study found that ICPs would like to create summaries and statistics of, for example, incoming and outgoing patients with information about isolation attached. The findings of this study show that ICPs do not have time for such tasks because of the excessive administrative workload especially in periods of an MDRO outbreak. eHealth offers many possibilities to optimize ICPs’ work so that they have more time left to create summaries and statistics.

A promising eHealth development already available for infection control are electronic surveillance systems. A recent systematic literature review examined the impact of electronic
surveillance software on ICPs resources, especially on staff time (Russo, Shaban, MacBeth, Carter, & Mitchell, 2018). Electronic surveillance software is defined as a system that performs electronic HCAIs surveillance (Russo et al., 2018). Of the 16 studies which met the inclusion criteria, estimates in the reduction in time spent on surveillance were calculated for 13 studies. All of the studies demonstrated a decrease (mean: 73.9%) in ICPs’ staff time.

In the hospital where the focus group was conducted, ICPs measure the prevalence of HCAIs within the framework of the Dutch national HCAIs surveillance system PREZIES. Streefkerk et al. (2016) compared an in-house computer-assisted point prevalence survey with the surveillance system PREZIES in a hospital exhibiting the same characteristics as the one in the current study. The study reported a reduction in ICPs’ staff time of 98.4%. The in-house computer-assisted survey was, however, limited to five categories of HCAIs, whereas PREZIES documented all types of HCAIs. Also, the PREZIES survey included the use of antibiotics, the presence of catheters, and several other parameters. Nonetheless, the percentage reduction is impressive and full automation of data retrieval and decision making supported by automated algorithms can save precious staff time in which ICPs can complete tasks they do not have time for at the moment (Streefkerk et al., 2016). Moreover, the current study found that ICPs struggle with giving feedback to doctors about the prevalence of HCAIs, since doctors do not see the value of obsolete rates. The software used in the study by Streefkerk et al. (2016) would solve this problem, since performing surveys on a weekly basis would only require 3 hours of ICPs’ time.

To realize the potential of eHealth such as electronic surveillance software as well as already established software like the electronic health record, it is crucial to take the needs and demands of users and the context of use into account (van Gemert-Pijnen et al., 2013). eHealth that is not working according to users’ expectations can lead to inefficient work processes and excessive workload. In the current study, duplication of work was the main issue. By identifying barriers and facilitators to the currently used ICT infrastructure in the hospital, this study adds to the growing buddy of research that indicates the importance of developing eHealth technology according to users’ needs and expectations.

**Strong Points and Limitations**

This thesis has provided a deeper insight into ICPs’ perceived barriers and facilitators to quality management. The study provided clear implications that should be considered by the hospital in which the focus group was conducted. Generally speaking, understanding the
QUALITY MANAGEMENT OF INFECTION CONTROL

perspectives of ICPs is important to guide future infection control policy in hospitals in the Netherlands. This study was the first to explore ICPs’ perspectives in the Netherlands.

Conducting focus groups has advantages and disadvantages compared to conducting separate interviews. The advantage of a focus group compared to separate individual interviews is that a focus group allows for discussion between participants. The idea is that group processes assist people to explore and clarify their points of view (Krueger, 1994; Liamputtong, 2011). Therefore, the results of this study present barriers and facilitators which may not emerge in individual interviews. There is some concern, if focus groups are appropriate in institutional contexts, such as the workplace (Liamputtong, 2011). A reason for this is that dominant individuals can intimidate other participants based on existing power structures in the workplace. In such cases, the researchers should ask themselves how actively and easily the participants would discuss the topic in question (Liamputtong, 2011).

Researcher JK already gained experiences before this focus group was conducted in discussing issues in the group of ICPs at the hospital and was confident that there were no barriers to active and easy interaction. This proved to be true throughout the focus group interview, since the whole group seemed enthusiastic about taking part in the research and discussing their perspectives.

All participants in the focus group interview were colleagues who worked in the same hospital as a team. The participants could easily be recruited since they already participated in previous research by JK. Obviously, the most conveniently available people were used as study participants. Sampling by convenience can be criticized for its lack of generalizability. However, the aim of the study was to understand infection control practitioners’ perceived barriers and facilitators to quality management. The main themes in focus were thus the perspectives of ICP in the hospital and therefore sampling by conveniences was considered appropriate (Polit & Beck, 2004).

A limitation of this study is that participants apparently understood the question about new quality data differently than it was intended. The question was: “What quality information do you think is important?” The intention of the question was to understand which quality information was regarded as important by ICPs. Quality information was defined broad in the sense that all information which allows to check if infection control is done well in the hospital is quality information. Possible answers could involve quality data which is already measured, for example in the assessment framework of the IGJ, and quality data which is not yet measured. Apparently, the participants thought that the question asked for general possibilities for improvement, since the informants reported desires such as that
their files are linked to the electronic health record of the hospital. The original question asked for tangible quality information which is more difficult to answer than general issues in the daily work. Even though the participants answered the question differently than expected, it contributed to the findings of this study. The ranking of the answers to the question gave a good picture of the priorities ICPs assign to different barriers.

Further research could usefully explore if similar barriers and facilitators are found in other hospitals in the Netherlands. In future investigations, it might also be possible to broaden the scope of the research and explore perceived barriers and facilitators of different staff groups. A fruitful area for further work would be to explore and contrast the perspectives of nurses, doctors and ICPs.

Moreover, further research is needed to understand the implications of this study. Since the concepts of ‘ownership’ and relational leadership seem to be promising concepts in infection control, further research is required to establish their viability. In a systematic review, Cummings et al. (2008) found that relational leadership skills can be learned. Further research in the same study population could thus involve workshops in which ICPs develop and foster relational leadership skills. The impact of the workshops on the relationships between ICPs and clinical staff could be analyzed after a period of adaptation.

Conclusions

The aim of the present research was to examine ICPs’ perceived barriers and facilitators to quality management of infection control. This study has identified that ICPs believe that clinical staff do not consistently feel responsible for infection prevention efforts. The research has also shown that ICPs encounter troubles in giving feedback to clinical staff. Furthermore, the currently utilized ICT systems lead to inefficient work processes, most notably duplication of work. In total, ten perceived barriers and six facilitators to quality management of infection control emerged from the analysis. The findings of this study suggest that structural changes in the hospital are needed. In order to improve compliance with infection control policies, nurses and doctors need to assume ‘ownership’ for infection control efforts. To improve relationships with clinical staff, ICPs can foster elements of relational leadership. The need to invest in better ICT, primarily a well working electronic health record, is evident. Considering the growing threat of healthcare-associated infections and antimicrobial resistance to public health, the implications should find their way into clinical practice for better quality of care and patient safety.
References


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Keizer, J. (n.d.). J. Keizer MSc (Julia) PhD Candidate / PhD Student. Retrieved from https://people.utwente.nl/j.keizer


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Appendix A: Focus Group Guide

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<th>Vragen</th>
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<tbody>
<tr>
<td>Inloop, voorstellen</td>
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<td>09:30-09:35</td>
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<tr>
<td><strong>Inleiding</strong></td>
<td>Welkom allemaal, leuk dat jullie er zijn en bedankt weer voor de tijd die jullie vrij maken voor dit onderzoek. Vandaag ben ik niet alleen, maar samen met Mathis en Annemarie. Mathis studeert gezondheidswetenschappen en vandaag zal hij mij helpen om de tijdsplanning goed te bewaken en hij gaat ook de resultaten verwerken voor zijn scriptie. Daarnaast is mijn begeleider Annemarie mee en zij zal notuleren. Nog even kort over het onderzoek: we onderzoeken dus hoe processen gerelateerd aan antibioticaresistentie verbeterd kunnen worden in het ziekenhuis, zodat uiteindelijk antibioticaresistentie beperkt blijft. In deze focusgroep richten we ons op een klein gedeelte hiervan, namelijk de kwaliteitsbewaking van infectiepreventie in het ziekenhuis; dus hoe zorg je er nu voor dat infectiepreventie goed gedaan wordt door iedereen, hoe kun je weten en meten of dat gedaan wordt, hoe interpreteer je kwaliteitsdata die gemeten is en hoe koppel je dat dan terug aan anderen, zodat er ook daadwerkelijk wat kan verbeteren. Uiteindelijk gaat Mathis hier zijn scriptie over schrijven, maar het draait voornamelijk om jullie: met ons onderzoek proberen we te kijken hoe we jullie werk als kwaliteitsbewakers van de infectiepreventie nu zo goed mogelijk kunnen ondersteunen. In deze groep is het denk ik niet nodig om te zeggen, maar er zijn geen goede of foute antwoorden. Het is juist interessant om zo veel mogelijke perspectieven te horen. Misschien is het vandaag voor het eerst dat je over kwaliteitsmetingen zo specifiek gaat nadenken, dus het is alleen maar goed als er discussies ontstaan; we hoeven vandaag niet tot een consensus te komen. Nog 2 praktische punten: 1. Zoals jullie al weten wordt deze focus groep opgenomen via twee mobiele telefoons. We willen jullie vragen goed richting de mobiele telefoons te spreken, zodat alles ook terug te luisteren is. Probeer ook zo min mogelijk door elkaar te praten. 2. Als het goed is, heeft iedereen een mobiel/tablet/laptop bij zich. Zouden jullie naar deze website willen gaan en deze code willen invullen? En dan mag je de eerste testvraag invullen. Let op, gedurende de hele focusgroep graag steekwoorden gebruiken om je antwoord in te sturen; de toelichting van de meest genoemde punten bespreken we later. Zijn er op dit moment nog vragen of opmerkingen?</td>
<td></td>
<td>09:30-09:35</td>
<td>5 min.</td>
</tr>
<tr>
<td>Inleiding</td>
<td></td>
<td></td>
<td>09:35-09:40</td>
<td>5 min.</td>
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</tbody>
</table>
### Vragen

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<tr>
<th>Vragen</th>
<th>Doorvragen</th>
<th>Checklijst</th>
<th>Tijd</th>
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<tbody>
<tr>
<td>(1) Wat zijn jouw 3 belangrijkste taken als DIP’er? Kort en bondig antwoorden (steekwoorden)!</td>
<td>Kijken of iedereen wat in kan vullen en hoeveel tijd dit ongeveer kost.</td>
<td>09:40-09:45</td>
<td>5 min.</td>
<td></td>
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<tr>
<td>(2) Welke rol speelt kwaliteitsbewaking van infectiepreventie in het ziekenhuis?</td>
<td></td>
<td>09:45-09:50</td>
<td>5 min.</td>
<td></td>
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**Introductievragen**

We hebben het nu kort gehad over kwaliteitsbewaking en om de kwaliteit te bewaken zijn er verschillende stappen. Allereerst moet je iets meten om tot inzichten te komen; hetgeen je meet noemen we kwaliteitsdata. Daarna moet je deze kwaliteitsdata interpreteren om te kijken of het goed of niet goed gaat (kale gegevens zeggen namelijk niet zoveel). De laatste stap is het terugkoppelen van de informatie aan de zorgverleners → zij zijn diegene die als het nodig is wat moeten veranderen. Over deze 3 stappen gaan de volgende vragen.

**(integreren van de vragen)**

### Meten

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<th>Vragen</th>
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<th>Checklijst</th>
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<tbody>
<tr>
<td>(3a) Welke gegevens verzamel je om de kwaliteit van infectiepreventie in het ziekenhuis te bewaken?</td>
<td>• IGJ toetsingskader gebruikt voor dagelijks kwaliteitsbewaking?</td>
<td>O IGJ toetsingskader (externe verantwoording) vs. eigen aanvullende kwaliteitsinitiatieven (interne verbeteringen).</td>
<td>09:50-09:52</td>
<td>2 min.</td>
</tr>
<tr>
<td></td>
<td>• Meten jullie daarnaast nog zelf wat om te bepalen of infectiepreventie goed wordt gedaan?</td>
<td>O Betrouwbaarheid (meet je wat je wilt meten); zin/onzin IGJ toetsingskader.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Hoe betrouwbaar zijn deze gegevens; dus in hoeverre meet je ook echt of het goed gaat?</td>
<td>O Wat kan er verbeterd worden? → opschrĳven als er al nieuwe voorstellen komen + terughalen bij vraag 6.</td>
<td>09:52-10:10</td>
<td>18 min.</td>
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</table>
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<th>Duur</th>
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</table>
| (3b) Hoe verzamel je gegevens om te bepalen of de kwaliteit goed is? | • Wat gaat er goed bij het verzamelen van kwaliteitsdata?  
• Wat kan er nog verbeterd worden bij het verzamelen van kwaliteitsdata? | O Automatisch dataverzameling/prevallentiemeting/gesprekken op de afdeling.  
O Wat gaat er goed bij het verzamelen bij deze data?  
O Wat kan er nog verbeterd worden? | 10:10-10:12 | 2 min. |

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<th>Vragen</th>
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<tr>
<td>We hebben het nu gehad over welke gegevens verzameld worden en hoe deze verzameld worden. Als gegevens verzameld zijn, moet er iets mee gedaan worden (analyseren en interpreteren) om te bepalen of het daadwerkelijk goed of niet goed gaat. Daar gaan de volgende vragen over?</td>
<td></td>
<td></td>
<td>10:10-10:12</td>
<td>2 min.</td>
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<tr>
<th>Interpreten</th>
<th>Vragen</th>
<th>Doorvragen</th>
<th>Checklijst</th>
<th>Tijd</th>
<th>Duur</th>
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</table>
| (4) Hoe analyseer en interpreteer je de gegevens die verzameld zijn om de kwaliteit te bepalen? | • Hoe analyseren jullie de kwaliteitsdata?  
• Hoe bepaal je nu of het goed is als je gegevens ziet? (normering)  
• Wat gaat er goed bij het analyseren en interpreteren van kwaliteitsdata?  
• Wat kan er nog verbeterd worden bij het analyseren en interpreteren van kwaliteitsdata? | O Data verwerking (analyses)  
O Normwaarden (vergelijken eigen data met landelijke normen)  
O Betrouwbaarheid kwaliteitsdata | 10:12-10:30 | 20 min. |

Na het analyseren zou de kwaliteitsdata idealiter ook teruggekoppeld moeten worden naar de mensen in het ziekenhuis, zodat zij weten hoe het gaat en waar er verbetering mogelijk is. De volgende vragen gaan over het terugkoppelen van kwaliteitsdata.
## Terugkoppeling

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<tr>
<th>Vragen</th>
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<th>Duur</th>
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</table>
| (5) Hoe wordt de (geanalyseerde) kwaliteitsdata teruggekoppeld aan de mensen in het ziekenhuis? | • Aan wie koppelen jullie de kwaliteitsdata terug?  
• Hoe verloopt de communicatie met de mensen over hun infectiepreventie taken?  
• Hoe zorg je dat mensen het ook volhouden om infectiepreventie op een goede manier te doen?  
• Wat gaat hier goed in?  
• Wat kan er nog verbeterd worden? | O Wie?  
O Communicatiekanalen  
O Aanspreken/Hiërarchie  
O Steun van uit RvB/arts-microbiologen | 10:32-10:50 | 20 min. |

### Vragen

We hebben het gehad over de huidige situatie, dus welke kwaliteitsdata verzamelen, interpreteren en koppelen jullie terug op dit moment. Wat we nu gaan doen, is nadenken over welke informatie je zelf nu echt nodig zou vinden om te bepalen of infectiepreventie goed gedaan wordt in het ziekenhuis. Dit kan informatie zijn die op dit moment ook al verzameld wordt (we hebben het Toetsingskader ook voor jullie uitgeprint), maar we zijn vooral ook benieuwd wat jij zelf nog beter vindt om te bepalen of het goed of niet goed gaat. Dit mogen jullie straks invullen via de website weer en dan gaan we de informatie ook ranken, zodat we uiteindelijk toch tot een soort consensus kunnen komen.

(6) Welke kwaliteitsinformatie vinden jullie belangrijk? Kort en bondig antwoorden (steekwoorden)!

Stemmen op antwoorden ingevuld + bespreken top 5.  
• Waarom vinden jullie deze belangrijk? (hoe verhoudt dit zich tot de daadwerkelijke kwaliteit?)  
• Vergelijkbaar met/anders dan toetsingskader IGJ → Hoe kan dit als je kijkt naar antwoorden bij vraag over meten?  

O Kwaliteitsinfo  
O IGJ toetsingskader ernaast houden als checklist!

### Pauze

<table>
<thead>
<tr>
<th>Tijd</th>
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<tr>
<td>10:50-10:55</td>
<td>5 min.</td>
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### Nieuwe kwaliteitsmetingen

<table>
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<tr>
<th>Tijd</th>
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<td>10:55-11:00</td>
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<td>11:00-11:20</td>
<td>20 min.</td>
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### Vragen Doorvragen Checklijst Tijd Duur

<table>
<thead>
<tr>
<th>Slot</th>
<th>Vragen</th>
<th>Doorvragen</th>
<th>Checklijst</th>
<th>Tijd</th>
<th>Duur</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(7) Is er nog iets waar we het niet over hebben gehad, maar jullie wel belangrijk vinden?</td>
<td></td>
<td></td>
<td>11:20-11:24</td>
<td>4 min.</td>
</tr>
<tr>
<td></td>
<td>(8) Als jullie de kans zouden hebben om advies te geven aan het bestuur van het ziekenhuis, wat zou jullie advies zijn?</td>
<td></td>
<td></td>
<td>11:24-11:29</td>
<td>5 min.</td>
</tr>
</tbody>
</table>

Dit was ook de laatste vraag. Mathis maakt een samenvatting voor jullie afdeling en verstuurd deze via de mail. Mochten jullie daar vragen over hebben, dan kan je altijd mailen. Tot slot wil ik graag iedereen hartelijk bedanken voor haar aanwezigheid en voor het delen van jullie ervaringen. We hebben wat lekkers gekocht om jullie nog extra te bedanken, dus neem gerust wat!
Appendix B: Informed Consent Form

Toestemmingsverklaring

Titel onderzoek: Understanding Infection control practitioners’ Needs of and Barriers to Quality (-management) of Infection control

Verantwoordelijke onderzoekers: J.M. Elling, Student BSc Gezondheidswetenschappen Universiteit Twente, XXX; J. Keizer, PhD student, XXX.

Ik verklaar op een voor mij duidelijke wijze te zijn ingelicht over de aard, de methode en het doel van het onderzoek. Ik weet dat de gegevens en resultaten van het onderzoek alleen anoniem aan derden bekend gemaakt zullen worden (d.w.z. uitspraken zijn niet te herleiden naar individuen). Mijn vragen zijn naar tevredenheid beantwoord.

Ik begrijp dat geluidsmateriaal of bewerking daarvan uitsluitend voor analyse zal worden gebruikt. Ik begrijp dat er vertrouwelijk wordt omgegaan met de opnames.

Ik stem geheel vrijwillig in met deelname aan dit onderzoek. Ik behoud me daarbij het recht voor om op elk moment zonder opgaaf van redenen mijn deelname aan dit onderzoek te beëindigen.

Naam deelnemer:  
Datum:  

Handtekening deelnemer:

Vragenlijst: Achtergrondinformatie

Deze gegevens worden niet gekoppeld aan uw naam, maar zijn nodig voor de wetenschappelijke verantwoording van de doelgroep.

<table>
<thead>
<tr>
<th>Vraag</th>
<th>Aantal in jaren (afronden naar hele jaren)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wat is uw leeftijd?</td>
<td></td>
</tr>
<tr>
<td>Hoe lang werkt u als deskundige infectiepreventie?</td>
<td></td>
</tr>
<tr>
<td>Hoe lang werkt u als deskundige infectiepreventie in het ZGT?</td>
<td></td>
</tr>
</tbody>
</table>