D6.2 Report on operation of pilots

WP6 Pilot site operation

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ORGANISATION RESPONSIBLE

ARes Puglia

AUTHORS

Francesca Avolio (ARes Puglia)

Elisabetta Graps (ARes Puglia)

CONTRIBUTING PARTNERS

Ane Fulluondo (Kronikgune)

Mario Raviç (ENT)

Daniel Hoffman (FER)

Zwiefka, Antoni (LSV)

Stefano Gris (ULSS2)

Jodie North (Powys)

Daniel Davies (Powys)

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D6.2 v1.0 CareWell Report on operation of pilots

STATEMENT OF ORIGINALITY

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

Executive Summary

This deliverable collects all the experiences of pilots in the operational phase of deployment of Integrated Care Services to frail multi morbid 65+ patients with the support of technology for remote monitoring, in order to keep them at home, and promote their empowerment to make them as much as possible independent, able to manage their chronic condition.

The project consisted of a case controlled study carried out in six different regions, Puglia, Wales, Veneto, Basque Countries, Lower Silesia and Croatia, aiming to compare an integrated care model without the support of ICT devices (usual care) with one supported by ICT devices for remote monitoring of patients.

The challenge was to define a common methodology, shared protocols and implement the same model despite the different contexts. Nine domains were identified relevant for the successful deployment of an integrated care model with or without the use of ICT devices, The domains are the following:
1. Patient recruitment.
2. Professionals' engagement.
3. Training.
4. Patient empowerment.
5. User satisfaction.
6. Technical aspects.
7. Regulatory domain.
8. Help desk.
9. Strategic alliances.

Each site activated actions according to their specific local needs, defining in detail activities performed, issues occurred and solutions, risks challenged and lessons learnt.

The final objective of this report is to highlight both commonalities and diverse features, in order to be able to know which findings are based on common core data and procedures, and can thus be generalised, and which ones are due to regional specific conditions.

The operational processes are a consequence of the work carried out in WP2 and WP3 and WP4, aiming to prepare sites for the provision of CareWell services.

A common framework of work was defined for all pilot sites in WP6, with a first action of coaching in order to cover all operational processes, and to provide full quality & support services. This represents the Workplan at pilot sites, a dynamic document to be updated in case of need during the ongoing deployment phase.

In deliverable D6.1, the workplan "Annex n CareWell operational plan template" was adapted to the local context by each participating region; these became annexes to D6.1 (from 1 to 6).

The implementation at each site has been carried out differently according to the specific workplan, This document sets out the solutions implemented by each region to guarantee the quality of provision of integrated care services according to the defined protocols, together with the different ICT facilities implemented to remotely monitor patients at home.

This report describes in detail all operational process of the deployment sites. The activities undertaken across the nine domains have been collected from the RAIL tool (risks, actions, issues and lessons learned) established as a method to transfer knowledge and experiences in the provision of integrated care services and introduction of ICT devices to support patient monitoring. All the findings are now shared by all pilot sites and WP leaders, supporting the latter in coordinating their WP more effectively. Each site describes its experiences and strategies, and provides a set of lessons that will allow readers to draw up future plans based upon others' experiences.

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1. Introduction

Frail elderly patients are characterised as having complex health and social care needs, being at risk of hospital or residential care home admission, and requiring a range of high level interventions due to their frailty and multiple chronic conditions. These patients typically demand an integrated care approach where all care practitioners working in the different levels of care have to be tightly coordinated, and special emphasis is put on patient empowerment.

CareWell aims to enable the delivery of integrated care for frail elderly patients supported by ICT-based platforms.

1.1 Purpose of the document

The implementation of integrated care services for citizens has been a challenge in each of the deployment sites participating in the study: Basque Country, Croatia, Lower Silesia, Veneto, Puglia, Wales.

This document gives the starting point of each of these deployment sites, and lists the actions that have taken and challenges faced in the provision of integrated care services with the introduction of devices for patients' remote monitoring at home.

In this document you will find the experiences faced by the sites in these nine areas:
1. Patient recruitment.
2. Professionals' engagement.
3. Training.
4. Patient empowerment.
5. User satisfaction.
6. Technical aspects.
7. Regulatory domain.
8. Help desk.
9. Strategic alliances.

These have been carried out according to the operational workplan defined in the annexes of D6.1. This document states the deployment process, highlighting that no major diversion occurred from the original plan except for the rescheduling of recruitment dates; specific contingency plans were put in place where necessary, and all sites took note of all issues that occurred and the related solutions activated, and all registered lessons learnt during the ongoing process of deployment.

This traceability of actions also applied to events that happened during the operational phase, and that were not included in the workplan; the events were not necessarily ascribable to the above mentioned areas.

The knowledge learned can then be transferred to other follower regions that want to implement integrated care services, and might benefit from this knowledge which is intended to include as many as possible variables that can potentially become a hurdle for the successful deployment of the service.

1.2 Structure of the document

Section 2 is a brief introduction to the process and methodology of the work on the provision of integrated care services defined in WP6.

Section 3 describes the starting status point of each site. The strengths, weaknesses, opportunities and threats of each of the deployment sites are described; this provides a brief understanding of the implementation strategies of each region.

Section 4 mentions the Operational Planning of Pilots.

Section 5 to 13 describes the activities performed, issues and solutions, risks and lessons learnt per site per area that occurred during the deployment phase of sites.

Section 14 gives a complete overview of the quality management carried out by the sites and the support maintenance planned and delivered by the Quality assurance team.

Section 15 describes the coaching activities.

Section 16 describes the coaching activities carried out to coordinate the pilot sites operational, to collate information about deployment process with support of the RAIL tool, to coordinate the definition of documents and deliverables.

The final section 17 describes the conclusions, highlighting commonalities, divergences, practical suggestions and common core data.

1.3   Glossary

AReS	Regional Health Agency of Apulia
CM	Care Manager
COPD	Congestive Obstructive Pulmonary Disease
CRM	Client Relationship Management
DoW	Description of Work
ECG	Electrocardiography
EHR	Electronic Health Record
EMH	Ericsson Mobile Health
ER	Emergency Room
F2F	Face to face
GP	General Practitioner
HIS	Hospital Information System
ICT	Information and Communication Technology
IT	Information Technology
LHB	Local health Board
LSV	Lower Silesia
MDT	Multidisciplinary team
MHOL	My Health Online
MSDI	Minimal Search Data Index
NHS	National Health System
ULSS	Unità Locale Socio Sanitaria
WCCG	Welsh Clinical Communication Gateway
WP	Workpackage

2. Background and methodology

2.1 Methodology

Before going into the detail of the document, it is important to quickly go through the methodology that was put in place in CareWell project in order to be fully operational.

The planning of the study started with the definition of use cases carried out in WP2 in order to define the pathways to include in the project, and the staring points of each sites. WP3 and WP4 worked on the definition of the Integrated Care Pathways, personalised by each site according to the local situation; this draws a picture of the pathways carried out by sites to treat stable and unstable patients in and out of hospital, and the support services planned to be introduced thanks to CareWell project.

In parallel with this, WP7 started defining the code book in which all the partners contributed to the definitions of the study protocol, indicators and evaluation processes.

All this information informed WP6 operational workplan.

The aim of the methodology adopted to carry out the project was to standardise as much as possible the work carried out in the different Regions, despite the different contexts, so as to be able to select those common elements in delivering Integrated Care services that can be applied despite the context, and hence identify those elements that are strictly connected to local factors, for which each region had to activate personalised solutions in order to overcome obstacles, reduce risks, and be successful in the deployment of integrated chronic care model and support services.

2.2 RAIL

The RAIL tool (Risks, Actions, Issues, Lessons Learned) was defined in the late stage of WP6 (beginning of second year project) and adopted as a communication methodology between CareWell members, but also to facilitate exchange of experiences. It collects, in an organised way, the experiences and lessons learnt in several operational areas. RAIL is a web tool, which was implemented within the project to permit monitoring of risks, and registering actions that were put in place in response to risks encountered, issues that arise, and lessons learned. This tool is supported by a database of excel spreadsheets.

The RAIL tool permits not only registration of information and experiences, but it can also be used as a tool to refer to when looking for other's experiences, and is a repository of knowledge. All the findings are shared by pilot sites and WP leaders, supporting the latter in coordinating their WP more effectively, and by the follower sites, to learn and use that knowledge in their own implementation.

RAIL has been completed by all pilot sites in the nine different domains of knowledge.

3.   Analysis of the status of sites

The following analysis shows the initial status of each site, analysing the strengths, weaknesses, opportunities and threats before the operation of integrated care services. This was used to create plans for the implantation of the integrated care services in the different territories, so that the deployment and operation of services would be successful.

3.1   Basque Country

Strengths

- The Basque Country started the transformation of the healthcare provision model a few years ago, so the basis of integrated care pathways already exists.
- Significant number of professionals and managers are convinced of the necessity of integrated care delivery, which facilitates the adoption of new procedures.
- Technological infrastructure is considerably advanced, and the services are extended in the system.

Weaknesses

- The current economic crisis forces the health system to focus on short-term measures instead of pushing the system transformation.
- Healthcare practices are highly stable (beliefs, attitudes, habits), so changes are difficult to extend.
- System-wide reform is needed since there are silos in clinical practice.
- Need to clarify and unify the integrated care pathway for frail elderly patients (roles, actors).
- Poor patients' and caregivers' empowerment.

Opportunities

- Structural integration of primary care centres and hospitals of the same geographical area (unique governance body), facilitating functional integration.

Threats

- Fluctuating organisations with frequent (every 4 years) changes in the managerial teams, complicating the continuity of innovative interventions.

3.2   Croatia

Strengths

- ICT tools implemented at national level: EHR, e-prescription.
- Field nurses are an integral part of health centres.

Weaknesses

- Care coordinator role does not exist.

Opportunities

- Introduce home monitoring.

Threats

- New service implementation slow

3.3   Lower Silesia

Strengths

- Lower Silesia is pioneering the integrated care approach to patients with complex needs, but it is included in our strategic Care Programme.

- GPs and hospital specialists are involved in technological support of patients.

- Call Centre worker has an important role in coordination and support of patients' empowerment.

- ICT platforms (Educational, Monitoring and Integration) are available to support integrated care.

Weaknesses

- Existing ICT platforms are not fully integrated and are not able to fully interact with each other.

- Communication between professionals and patients is not ideal, and needs to be matured.

- Current algorithms for reporting and data control need to be fully functional.

- Patients' empowerment needs to be improved.

- Lack of social platform to be integrated with other stakeholders.

Opportunities

- There is a greater opportunity to upscale the pilot site.

- There is an interdisciplinary team which works on providing integrated support for telecare.

- There is opportunity for better communication and more effective and efficient services and healthcare interventions.

Threats

- Lack of financing of telecare by National Health Fund.

- Patients would not pay for telecare service.

3.4   Veneto

Strengths

- In Veneto Region primary, secondary and social care could be delivered by the so called ULSS from 1992; that means that we could have one provider for all the main care services.

- Each ULSS has its own Multidimensional Assessment Unit composed of all the relevant practitioners involved in patient care, and appointed to assess the patient's condition.

- We already have in place a common tool (the S.Va.M.A. tool) designed for patient assessment.

- The main practitioners are already involved in care planning for patients with complex needs.

- Social care service and home care nursing service store data in the same ICT platform (Territorial Information System).

Weaknesses

- A common ICT platform for primary, secondary and social care services does not exist.

- Almost all the main activity in integrated care planning is carried out by filling in paper forms.
- Information is not shared with other relevant professionals, but kept in the service ICT platform.
- The different ICT platforms are not able to exchange information with one another.
- GPs and other healthcare professionals are not so confident with ICT devices / tools.
- Patients' empowerment education has to be agreed with all the professionals.
- The organisational structure is rigid due to its public body nature.

Opportunities

- Enable professionals to share the main data in a common ICT platform (patient dashboard).
- Reduce the paper forms and increase ICT data collection.
- Access the ICT platform from the whole ULSS territory, and not only from the ULSS intranet.
- Boost the collaboration among professionals in integrated care planning.

Threats

- Lack of change management prospective.
- Professionals involved do not want to use new device or new ICT platform because they feel overloaded.
- Patients enrolled are elderly and low skilled that require more professional effort in training the patients.
- Bureaucracy is used as a barrier to resist the new way of developing services.

3.5   Puglia

Strengths

- In Puglia, an integrated approach to patients with complex needs has existed since 2012 (Care Programme).
- GPs and Care Managers are involved in powering electronic health record (EHR) and using it for interconsultations.
- Care Manager has an important role in pathway coordination and support of patients' empowerment.
- ICT tools are available to support integrated approach (Care Programme software – Regional health information system).

Weaknesses

- Communication and integration between professionals and patients is not ideal.
- Specialist is not involved in EHR consultation.
- Care Manager's role needs a better definition in integrated care coordination pathway.
- Existing ICT tools are not always able to interact with one another.
- Patients' empowerment need to be improved.
- Lack of home monitoring.
- Lack of ICT support / organisational models to discuss patient's health status.

Opportunities

- Strengthen interdisciplinary team work and cohesion by providing integrated support for communication and more effective and efficient planning of services and healthcare interventions.
- Foster end user's self management and empowerment.
- Testing remote monitoring at patient home.

Threats

- Lack of clear financing plan, in National Health Fund, for telecare.

3.6 Powys

Strengths

- My health online is a programme currently running in Powys which has a strong link with patient empowerment, enabling online management of patient details, contacts, appointment booking and prescription ordering.
- Powys has the ICT tools to support an integrated healthcare approach.
- CareWell services fit strategically with Powys teaching Health Board and National healthcare objectives.
- An integrated approach to patients is one of the main values; CareWell and Powys both have a clear vision to provide integrated care centred on the needs of the individual.
- Interconsultation between primary and secondary care is possible in Powys through the Electronic Health Record (EHR) and videoconferencing.
- Some mobile communication devices are available within the GP surgeries to support the use of Skype for Business.

Weaknesses

- There was a lack of ICT input in the local project team; the lack of ICT engagement at early stages resulted in no structured engagement and identification of available tools / solutions.
- Loss of key personnel. The Project Manager and Project Executive left for new roles, thus giving no ownership to project.
- The line management of the core project team was altered which effected the working relationships and the prioritisation of the EU projects.
- Patients are not all ICT literate, therefore not using the programme to its fullest extent, thus not feeling the need to continue it.
- There is initial resistance when using the MSDI tool.
- Self assessment highlighted that GP practices were at different stages within each of the steps, also highlighting that each of the practices had different aims.
- Patient engagement at home needs to be monitored more regularly.

Opportunities

- Consider involving a patient voice on the Board to discuss project changes and development of technologies. Health apps on mobile devices have grown exponentially since the beginning of the CareWell project.
- Strengthen communication and cohesion within GP practices by providing support to make sure all GP practices are more effective and efficient in gaining the same outcomes.

Threats

- Lack of patient engagement with CareWell project and lack of support ensuring patient engagement may result in insufficient data collection and may jeopardise consolidation of project.

4. Operational Planning of Pilots

4.1 Background

The CareWell operational workplan for each pilot site has been drawn up in order to plan and monitor all requirements needed to prepare the site for operations. These are annexes to D6.1.

Ares Puglia, which is responsible for coaching the pilot site operation, circulated the previously agreed operational plans (annexes to D6.1) to all the other partners responsible for the different tasks, namely Basque Country, Croatia, Wales, Lower Silesia, Veneto and Puglia.

Each site used this document as a guideline to produce their local operational plan. Each site's operational plan was sent to HIMSA which, according to task description, referred to them while collating data, indicators, and issues of the ongoing deployment during the 18 months.

The guideline served as the initial operational planning template to support the sites in setting up, operating and maintaining the operation at full scale within the planned time frame, and also ensuring adoption of a coherent approach across all sites.

The document, therefore, represented the general guideline; each site adapted it to the given circumstances at local level, with detailed descriptions of the activities to be carried out.

The guidance ensured a homogeneous development of every phase of the operational plan development across Basque Country, Croatia, Wales, Lower Silesia, Veneto and Puglia. To this extent, the document made it possible to standardise the deployment phase, and the collation of the information necessary to support the evaluation process, and the production of the Issue List.

4.2 Basque Country

Pilot site successfully deployed operational workplan.

4.3 Croatia

Pilot site successfully deployed operational workplan.

4.4 Lower Silesia

Pilot site successfully deployed operational workplan, except for the following deviations:

- Small number of patients: 50 patients in intervention group were involved in piloting platform. Nest step is upscaling the number of patients to 1000.
  - platforms integration for 50 patients in intervention group;
  - educational platform for patients and informal givers with mobile application was established;
  - data were collected, and a simple algorithm was created to warn of out-of-range clinical parameters.

4.5 Veneto

Pilot site successfully deployed operational workplan except for the following deviations:

- Medical consultation via videoconference.

4.6   Puglia

Pilot site successfully deployed operational workplan except for the following deviations:

- Sending therapeutic recalls toward Hub.
- Platform adaptation to release educational tools to patients and informal givers.
- Platform / Hub setting to create warning for out-of-range clinical parameters.

4.7   Powys

Pilot site successfully deployed operational workplan except for the following deviations:

- Solution selection / technology options reviewed and re-selected as part of a local review in August 2015 due to delays in deployment.

5. Operational experiences in recruitment of patients

Introduction

The site leaders recruited the planned number of patients and older persons suffering from multiple chronic diseases and meeting the specified demand for services to participate in the study. Work on user recruitment must begin well in advance of service operation, and appropriate contingency plans put in place where user recruitment approaches are ineffective or reach disappointing numbers. This is particularly the case where the evaluation plan specifies that users must have specific characteristics in addition to simple willingness to participate in the pilot. When participants are introduced to the project, the overall project aims and ideas about the technology deployed in the trial, and how participants will be involved, should be explained.

5.1 Basque Country

Activities performed

- Patient empowerment programme (Kronik ON). The first session of empowerment is performed by the nurse at home. The aim is to assess the social situation of the patient.

- First assessment of patients includes a lot of scales. The PIRU scale is difficult for these older patients.

- Regular reminders to professionals to ensure that all information is properly registered, and highlight the most relevant aspects of the intervention already identified during the formal training sessions.

Risks faced

- There is a risk that some quarterly revisions, that should be face-to-face visits, have actually been made by phone call follow up. Conversely, there is also the risk that face-to-face visits have been made taking advantage of the fact that the patient comes to the Health Centre for another reason; these visits may not have been properly registered. This makes it extremely difficult to verify the real degree of compliance with CareWell protocol.

- Loss or delay in patient monitoring due to change of professionals (sick leave not covered, etc.).

- Maintenance of this variability in relation to time, at each stage of the project.

Issues occurred

- In the first session of the empowerment programme, the nurse performs the assessment at home; some independent patients who always go to the primary care centre do not understand why the nurse has to go to their house. Patients feel overwhelmed.

- Some independent patients have undergone the first empowerment session in primary care consultation, and social situation has been evaluated with the Gijón scale[1].

- The first assessment takes too much time. It took a long time to complete the first assessment of all the recruited patients.

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[1] The Gijón Scale is a socio-familiar assessment for elderly people to detect social risk. Different parameters are analysed: family situation, economic situation, home, social relationships and social network support.

- Heterogeneity in the use of the forms (i.e. made by telephone call or face-to-face visits). There is not a uniform way in which the single standardised assessments were carried out. The monthly form is not always filled out.

- Diversity in the use of the forms, which adds complexity when interpreting them. A quarterly form used with the absence of the main form set by the protocol (monthly form).

- Detection of interruptions in patient monitoring due to: prolonged admissions or readmissions of patients; holidays and time out of town; also the professionals involved being off work.

- Due to the long duration of the recruitment phase, an adaptation of the dates corresponding to the intermediate phase surveys was required. So, with some patients, it was not possible to complete them six months after recruitment (as per protocol).

Lessons learnt in the Basque Country

- The number of scales for the first assessment should be reduced, because some of the patients declined to participate because they had to respond to a lot of questions.

- Need to add specific information in the EHR about the type of patient follow-up contact (i.e. phone call or face-to-face visit).

- Necessity to add more specificity to the Osabide AP forms, to achieve a greater alignment with the protocol in a more consensual manner, thus avoiding much variety in the records of the OSIS.

- Necessity of close monitoring of possible causes for late collection and registration of patient data, for example in an additional report that attaches to the overall results of the study, and could expose incidents relating to the evolution of individual patients; thus being able to consult, analyse and know those reasons that have triggered an absence of follow-up, especially in cases which may affect more or less directly in the study results.

- Need for improvement in the process used for the notification and disclosure of the definitive and/or temporary drop outs due to other causes.

- Need to adapt the dates of the procedures of each stage, based on the priorities that mark the study in terms of data and minimum periods of completion.

- The existence of a field coordinator role is essential to give support to professionals, solve doubts, clarify distinct aspects of the protocol, help registering information in the corresponding registries.

5.2   Croatia

Activities performed

- Patients selected by GPs and nurses, informed consent signed.

Risks faced

- Not having high number of patients for GP-nurse team.

Issues occurred

- Patients dropping out and not returning monitoring equipment (smartphones).

Lessons learnt in Croatia

- Service applicable to wider entry criteria (specific ICD code) would allow wider patient range to benefit from service, and thus having larger patient recruitment pool.

5.3   Lower Silesia

Activities performed

- Enrolment of patients over 65 was conducted in two phases: 50 patients for intervention group were selected at discharge from hospital, and 50 patients were selected from outpatient clinics. Invited eligible patients were informed about the project, and signed the informed consent form.

Risks faced

- Patient death.
- Withdrawal from the project.
- Serious illness.
- Hospital stay.
- Going abroad / moving to other place.
- Insufficient number of eligible patients may jeopardise the sample size.

Issues occurred

- There were problem in qualification of patients to participate in the project, especially with diagnosed heart failure, patient death and simple cancellation of participation in the project.

Lessons learnt in Lower Silesia

- There must be a much larger number of patients "reserve / backup" who demonstrate a willingness to participate in the project. Patients who are not convinced to participate should constitute such a group, because there is a risk that they would withdraw after qualifying.

5.4   Veneto

Activities performed

- Patients have been selected using stratification software (ACG). All patients over 65 years of age, with at least one of the three diseases (COPD, diabetes or CHF) and with at least one contact with the home nurse service have been grouped on an eligible list per GP.
- The GPs validated the list confirming the disease and frailty.
- Once the GPs have validated the eligibility of the patients, the patients have been divided into intervention and control group.
- Patients have been contacted by the GPs, informed about the project purposes, and enrolled in accordance with their decision.
- All the patients enrolled signed the consent forms.
- The enrolment questionnaires have been completed by the GPs, helped by the home care nurses, and were uploaded into the territorial information system or the project database.

Risks faced

- The ACG system uses data related to the previous year. The patient list contained dead patient or patient not compliant with the eligible criteria anymore; this required a GPs validation of the list.
- The informed consent forms and the enrolment questionnaire required a lot of information, and took a lot of time to be filled out.

Issues occurred

Many of the enrolled patients are elderly people, which means:

- Some patients died or were admitted to a nursing home during the follow-up period.
- Patients felt that answering all the periodic questionnaires was overloading.
- Some patient had a long hospitalisation or entered the palliative pathway.

Lessons learnt in Veneto

- Stratification of the population may help the professionals during the enrolment phase; the more reliable the stratification is, the faster the enrolment phase.
- It is very important to clarify the purpose of the project and the inclusion / exclusion criteria with the GPs; this helps the update and validation of the stratified list of potential patients.
- GPs are key figures in patient enrolment, due to their trust-based relationship with the patients.
- The age of the patients may be a barrier when a lot of information has to be asked from the patients.

5.5   Puglia

Activities performed

- Patients over 65 years old, selected from regional data warehouse, stratified per clinical severity (CCI) and grouped on eligible lists per GP.
- Enrolment in two phases: eligible patients informed about the project, then signature of the informed consent.

Risks faced

- Stratification: there were many deceased patients in the eligible lists for GPs (origin – Regional data warehouse 2013, stratification with Charlson index available).
- Enrolment: Some of the patients, informed about the projects aims, declined to sign the informed consent (withdrawals).
- Base line evaluation: interviews took too long to be performed.
- Insufficient number of eligible patients may jeopardise the sample size.

Issues occurred

- Lack of compliance on devices usage (no informal consent).
- Lack of compliance on periodic questionnaires (no informal consent).
- Death.
- Worsening conditions (cancer diagnosis).

Lessons learnt in Puglia

- Stratification: to keep the Regional data warehouse updated with the civil register.
- Patient base line evaluation: to reduce as much as possible use of questionnaire to get the project protocol information.

5.6   Powys

Activities performed

- Patient recruitment:
  - Patients over the age of 65, who live in Powys suffering with chronic heart disease, diabetes or COPD were selected to take part in the CareWell project.

- 6 out of 17 practices in Powys agreed to take part with the possibility of each practice having 20 patients that would be suitable to take part in the CareWell project.

Risks faced

- A lack of evidence based methods for definition of target numbers for patient inclusion resulted in additional unnecessary challenge in recruitment.
- Specific patient criteria meant that there was a possibility of insufficient numbers of eligible patients, which may be of concern for the sample size needed for data analysis.
- An insufficient number of GP practices were involved within the project due to requirements not being stated clearly at the recruitment stage.
- Interviews took longer than expected due to availability of interviewers.

Issues occurred

- Fewer patients participated due to a lack of interest, as they did not see how beneficial the project was at a personal level.
- Patients deceased. Due to patient criteria, this was always known as a possibility; age and medical conditions are contributing factors.
- Lack of compliance on device usage, age being a contributing factor.
- Patients lack of engagement with feedback and questionnaires. Data could not be analysed sufficiently.

Lessons learnt in Powys

- Target setting should take into account regional patient data, and be set using evidence / information based approaches, thus making them realistic.
- With the GP services in Wales managed under the Welsh GP Contract / Qualities Outcome Framework, Powys relied on the engagement and partnership working for its GPs to take part in such projects. A lesson learnt from Powys is to engage as early as possible and better demonstrate (not just promote) the benefits to all stakeholders.

6. Operational experiences in professionals engagement

Domain objective

How to recruit professionals for services delivery and pathways implementation, who in the organisation has the administrative competence, which types of contracts are usable to hire professionals, in how much time the recruitment will be completed.

How to manage and to report on project costs / reimbursements / payments.

Identification of professionals for the intervention, engagement of professionals in the CareWell intervention by explaining the protocol and their specific tasks at each point of the pathway.

6.1 Basque Country

Activities performed

- In order to increase professionals' engagement, the presentation of the project was done by top managers of the organisations together with clinicians with prominent clinical experiences who are well considered among peers. With this approach, the commitment and support of the organisations were shown, as well as the scientific validity of the intervention.

  In order to maintain the engagement of the professionals during the implementation, we circulated on a monthly basis a report summarising the recruitment status, clinical events if any, incidents, corrective actions applied, and next meetings. We also collected feedback from front-line professionals on a regular basis to detect possible improvement areas, since they are best positioned to know how to improve the service.

- Regular F2F meetings (monthly basis) were organised between the professionals and managers of the organisations involved, in order to keep them informed, receive their feedback, discuss issues, and modify the protocol if necessary.

- Regular reminders to professionals to ensure that all information is properly registered, and highlight the most relevant aspects of the intervention already identified during the formal training sessions.

Risks faced

- No risks occurred.

Issues occurred

- Some professionals consider that CareWell project means more daily work.
  - Those responsible for CareWell implementation have explained to these professionals that it is the same work, because the patients are the same that they had before the CareWell project.

- New staff involved in CareWell who had not received the initial training on CareWell protocol (human resources movements, maternity leave, sick leave, etc.).
  - Peer-to-peer training.

- The movements and off work of professionals was not reported directly, so some of them could not be contacted during revisions of clinical records or through the 6 months interviews, then trying to make contact with the replacement or newly hired person.

Lessons learnt in the Basque Country

- The professionals involved in the project should be the most engaged, because recruitment has varied widely between professionals.
- Need to communicate any changes related to HHRR involved in CareWell (such as transfers, sick leave, maternity leave, etc.) to be able to provide guidelines as well as a contact to answer any doubts that may arise.
- Consider staff movements, substitutions, off work, etc., establishing from the beginning a reporting system to report these changes.
- The existence of a field coordinator role is essential to give support to professionals, resolve doubts, clarify aspects of the protocol, help registering information in the corresponding registries.

6.2   Croatia

Activities performed

- Professionals selected by head of Health Centre as most adaptive and innovative.

Risks faced

- Not all professionals were interested in project participation.

Issues occurred

- Professionals needed to be replaced during the pilot project, both GPs and nurses.

Lessons learnt in Croatia

- Ensure group meeting of professionals, knowledge sharing sessions, inclusion in project decisions, for eventual handovers to be made seamlessly.

6.3   Lower Silesia

Activities performed

- To create an entire team it was necessary to sign an order contract for additional work of medical staff, but not for everyone.

Risks faced

- Lack of motivation to participate in the project: the withdrawal of personnel, especially when it is pending.
- No financing for additional work / extra staff for the team.
- Too poor knowledge of the English language and the lack of translations may discourage medical staff from participating in the project.

Issues occurred

- The withdrawal of some specialists from the project.
- Not everyone who should be involved to participate in the project was given sufficient motivation, either with money, or in another form; a problem to reconcile professional duties and involvement in the project during working hours. For some experts, it was not possible to provide any incentive to increase effort.
- When discussing the working conditions, the team was not sufficiently informed about the details of many aspects of their duties, e.g. additional surveys of patients, additional survey responses, the lack of translation of texts, lack of service support, additional reports, etc.
- Problems with the financing of maintenance, providing too little pay. Was it too much work for a small team of specialists?

Lessons learnt in Lower Silesia

- Financial incentives / reimbursement should be adequate for motivation and assistance, contact and explanation for professionals, to encourage cooperation and participation in the implementation of new solutions.
- Provision should be made for a sufficiently large team, and the need to enlarge this team in busy periods.

6.4 Veneto

Activities performed

- We engaged 28 (50%) GPs, 22 home care nurses (100%), 9 social workers (100%), 23 specialists and 3 hospital nurse.
- We provided economic incentives for the GPs within the GPs' Incentive programme.

Risks faced

- Reluctance of the professionals to be involved in the project.
- Professional retiring (2 GPs and 3 home care nurses).

Issues occurred

- Professionals (especially the GPs) did not want to be involved in the project because they felt the project was extra work.
- Some professional retired during the follow-up period.

Lessons learnt in Veneto

- Involving the heads of the departments or the supervisor of the health and social care professionals helped to gain attention and interest in the activities that have to be carry out by the professionals.
- We asked the supervisor or heads of the departments to organise the activities as they preferred; in this way, the professionals involved in the project were less reluctant to perform the activities.
- Regarding GPs, we provided an economic incentive for GPs that enrolled patients and wanted to be involved in the project. Economic incentives could be a good solution if you have a strong unionised situation to deal with.
- We assured all the support in training during the follow-up phase to all professionals; in this way, they felt more confident in the activities they had to perform within the project. We also assured our availability in case of any necessity or suggestions / complaints in order to improve the pathways and the project tools.

6.5 Puglia

Activities performed

- Care team was already in place at pilot site both in Campi Salentina Local Health District (intervention cohort) and Canosa di Puglia Local Health District (control cohort).

Risks faced

- Professionals' withdrawal.

Issues occurred

- Increased workload for professionals, not having envisaged any incentive.

Lessons learnt in Puglia

- To support and deploy innovative approaches or extra activities, it is necessary to envisage the introduction of ways to incentivise collaboration and adherence.

6.6 Powys

Activities performed

- The Project team engaged with 17 GP practices in Powys, with 6 of the 17 practices expressing a great interest in participating in the CareWell project; all of them agreed it was possible to include 20 patients from each practice.

- Stakeholder engagement workshops were held at the beginning of the project with healthcare professionals and Health Board staff.

- During year2, a review concluded that further stakeholder engagement, stakeholder mapping and communication plans needed developing to ensure a more cohesive project team and board.

Risks faced

- Key stakeholders not identified and not involved in early stages of the project; this effected ownership, understanding and delivery activities within the project.

- Possible practice and professional withdrawal.

Issues occurred

- Two practices withdrew from the project due to requirements that were not stated at the time of recruitment.

- Some stakeholders withdrew from the project as the failed to see the full benefits and outcomes of the project.

Lessons learnt in Powys

- An efficient stakeholder analysis and mapping will help future projects ensure that "all" relevant stakeholders are identified, the benefits and disadvantages that they can expect from the project, and the desired outcomes.

- It is vital that all professionals that are engaging with any future projects are given full details of the requirements, desired outcomes before commitment to progress, on order to minimise the chance of withdrawals from the project.

7. Operational experiences in training professionals, formal & informal carers

Domain objective

Staff users such as healthcare professionals, informal and voluntary carers, and social care staff, are instructed on how to operate the new services and respond to events which may arise in the course of the trial.

Appropriate protocols have been put in place, and appropriate documentation provided. For complex service procedures, instruction may extend to a short training course with opportunity for refresher sessions where the need arises.

In the case of services or service components which are automatic in day-to-day provision, only ICT staff need be instructed in service / data maintenance issues and user support.

Sites defined the composition of the training team and the methodology to be put in place to guarantee support for on the job and refresher sessions if needed. Training material was made available, together with technology to support sessions.

In this section, the methodologies adopted are described, and also the different training needed by carers, informal carers and professionals, according to the specific needs that emerged.

7.1 Basque Country

Activities performed

- We realised that the professionals involved in CareWell required different types of training:
    - Presentation of the project to understand the overall goal.
    - Detailed description of the intervention to be deployed, explaining the roles of each stakeholder.
    - GP practice nurses have been provided with specific training to learn how the "Kronik ON" programme is structured (patient empowerment), which is a core service in CareWell intervention.
    - GP nurses attended a session which explained how to register the information in the EHR; they also received a detailed protocol.

  All these activities increased the self-confidence of all stakeholders and reinforced their skills.

- The training sessions have been certificated, so all professionals receive their degree. This is a good compensation.

- Regular reminders to professionals to ensure that all information is properly registered and highlight the most relevant aspects of the intervention already identified during the formal training sessions.

Risks faced

- Difficulties to give continuity to track patient.

Issues occurred

- Not all professionals have been given a complete and detailed training of all CareWell guidelines and processes, such as received by the professionals who participated from the outset. Nor has a system of notification of changes of personnel been described; this means that each centre has been commissioned to train them in an individualised way.

- We have noticed that training sessions are more effective if they are between peers, meaning that the trainer has the same role and position as the audience, e.g. training for the Kronik ON programme was led by GP nurses, since the audience were GP nurses.
- This approach increased the good atmosphere and empathy; training is better received by attendees.

Lessons learnt in the Basque Country

- Contemplating staff movements in the protocol, specifying guidelines for the incorporation of new professionals in the project, so that they receive similar training to the professionals who were there from the beginning.
- Design a process so that all movements are systematically notified, with the intention to instruct all newcomers with at least the basic guidelines of the protocol, and stay more aware of their recent addition to the project.
- The existence of a field coordinator role is essential to give support to professionals, resolve doubts, clarify distinct aspects of the protocol, and help registering information in the corresponding registries.

7.2   Croatia

Activities performed

- Training for field nurses and GPs, performed in group and individually; informal carers trained by nurses.

Risks faced

- Training repetition was not planned, but it was needed.

Issues occurred

- GP application was not working properly in the initial period, so training needed to be repeated.

Lessons learnt in Croatia

- Make training in a digital form; produce short 1 minute guides in videos.

7.3   Lower Silesia

Activities performed

- The training team from HIS, May2015.
- The training team of Integra, July 2015.
- Retraining team of Integra and HIS, from May to October 2015.
- Training for the patients and their informal caregivers, from July to October 2015.
- Telephone and individual retraining of patients, September - October 2015.
- Training of team and patients with mobile application, Spring 2016.

Risks faced

- Staff or patients may withdraw from the project after training, from fear that they might not be able to do their tasks, or too much time needed to do so.
- Poorly prepared and conducted training.

Issues occurred

- Difficulty in completing / choosing the team.

- Patients who withdrew from the project after training.
- Insufficiently and not carefully prepared training; there was needed for multiple retraining sessions.
- Training of patients how to use measurement equipment was planned to be individual, but was carried out as a group.
- Lack of training for service.
- No translation of manuals for measurement equipment.
- Team for patients training was too small.

Lessons learnt in Lower Silesia

- Well-conducted training of staff and patients, as well as maintenance, are essential to achieve success in implementation of new ICT technologies.

7.4   Veneto

Activities performed

- The training activity was addressed mainly to the health and social care professionals.
- General training sessions were organised in order to train all the professionals involved in the project.
- Professionals have been provided with the CareWell services user guide.
- One-to-one training sessions were organised for professionals that needed more support.
- During the first period, professionals received also remote support.

Risks faced

- Some professional could be reluctant to use ICT tools or new platform.
- Patients are not confident at all with the hi-tech devices.

Issues occurred

- Some professional were scared about the possibility of entering wrong data or deleting information.
- Some professionals were not confident with the PC / smartphone etc., and that required a long training session on the basic function of the devices before starting the project activity training.

Lessons learnt in Veneto

- Organising specific training sections for the different healthcare professionals helps the training process, because they can discuss all their doubts all together.
- One-to-one session and remote support avoid mistakes and help professionals to feel more confident.
- Giving a specific and simple (illustrated) user guide helps professionals during the project activities, and can lead the professionals step-by-step in their day-to-day work.

7.5   Puglia

Activities performed

- Initial training sessions delivered to the care team to present the project goals and protocol to be implemented. Refresher sessions on March 2015 while delivering

devices at pilot site was ongoing. Additional refresher sessions were performed in May 2015 while the installation team was managing devices installation at patients' homes. Another session was performed in November after many malfunctioning episodes were reported.

Risks faced

- Risk of patient's loss of compliance because of diffidence in the use of medical devices, and towards technicians rather than health professionals.

Issues occurred

- Need for unplanned refresher sessions on the use of remote monitoring technologies.

Lessons learnt in Puglia

- Training improves the health professionals' resilience, and as an indirect consequence, creates the right environment to succeed in the delivery of the innovative models.

7.6 Powys

Activities performed

- Training sessions were initially delivered for healthcare on the Powys system Myrddin. This gave the carers a wide view of the objectives of the CareWell project.

- In November 2015, GP practices undertook training workshops to further develop their knowledge with refreshers, then again in January 2016 and May 2016.

- Patients also engaged in training workshops in January and May 2016, which helped them to develop further knowledge on the devices being used, etc.

Risks faced

- There was a risk that the patients would lose knowledge of their devices due to lack of training, with the understanding that the majority were considered as not being IT literate.

Issues occurred

- Slippage in MS Lync National Programme resulted in CareWell sites being delayed in terms of MS Lync being rolled out.

- The rurality of Powys provides challenge in access to the internet, meaning connectivity for patients is an issue; some patients had to use public libraries to access services.

Lessons learnt in Powys

- To create a successful environment for the CareWell project, it is crucial that the correct amount of training is undergone by staff users such as healthcare professionals, informal and voluntary carers, and social care staff, thus ensuring a great execution of the project.

8. Operational experiences on patient empowerment

Domain objective

Pilot sites had to develop and put in place methodology to ensure patient empowerment (information of self-management, what is the disease, symptoms, alarm systems and how to act, recommendations on diet and physical exercise).

Empowerment regarded not only improvement of self management, but also support in overcoming diffidence at the use of ICT tools, and resilience in self monitoring processes.

They all activated different methodologies and used different materials, including films and online facilities. These became part of a common repository to be shared and disseminated. They also provided feedback on patients' satisfaction

8.1 Basque Country

Activities performed

- Development of the structured and standardised empowerment programme (Kronik ON) for frail elderly patients and caregivers. The programme has been created by nurses from primary care.

- Testing of the empowerment printed material with patients and caregivers to ensure it fit with users' needs and expectations.

- Make the information of the empowerment programme accessible through the website of Osakidetza, especially for caregivers who often are much younger that the patients.

- Explanation to each patient of the parameters and constants they have to deal with in the self-control notebook, depending of the diseases they have.

- Regular reminders to professionals to ensure that all information is properly registered, and highlight the most relevant aspects of the intervention already identified during the formal training sessions.

Risks faced

- None.

Issues occurred

- The patient empowerment activities performed by healthcare professionals have not been homogeneous across the healthcare service. Although the information provided to patients and actions recommended are expected to be similar, they depend on the healthcare professional.
  - We realised that a well structured and standardised empowerment programme was needed in Osakidetza in order to ensure that all professionals provide patients with the same information which has been prepared and validated by a clinical working group (mainly composed by nurses).
  - In addition, we avoid inequalities, since all patients receive the same training irrespective of their GP nurse or primary care centre.

- Some patients consider that they have to control too many constants and parameters, and write them into the self control notebook. They felt that it is too much.
  - Prioritise data, signs and symptoms to be controlled by each patient, adapting to each patient according to pathology, their social situation, and giving priority to essential data suggesting destabilisation.

- Some patients do not have the devices to measure arterial pressure or glucose.

- These parameters have been prioritised depending on the diseases of each patient.
- We cannot know if the empowerment is done to the patient or to the caregiver, because the nurse cannot enter this in the electronic health record this information.
  - We check the Zarit scale, which can give us information about whether the patient has a caregiver. We need to ask the IT department to add a new variable in the electronic health record to enter who is the empowered person.
- Some patients have interrupted the training and patient empowerment, for several reasons: professional holiday, patient changes residence temporarily or goes on a trip, hospital admissions, etc.
- Some patients have had difficulties in self-monitoring (blood pressure, heart rate, etc.) or have no means / equipment to carry it out.
- It is difficult (there is no standard way) to analyse the degree of empowerment that patients have received, and whether it has been sufficient / insufficient, if it needed reinforcement, difficulties and incidents. Difficulty to assess, in a qualitative way, how they have developed these empowerment sessions.
- Patients with limited financial resources to have access to tensiometer, etc. Patients with limited access to web Kronik ON. Patients / caregivers very old: cognitive and practical difficulties to use ICT.
  - Personalised empowerment.
- Fulfilling 100%, collecting as incidents a particular case of a patient of OSI BILBAO-BASURTO, with continuous admissions, consultations and complications, were only made possible in a single session (the first) of the four that completes the empowerment. Nowadays, this continues with recurring problems and processes.

Lessons learnt in the Basque Country

- By taking into account patients' and caregivers' opinion, the validity and usability of the printed material of the empowerment programme has been ensured.
- Need to adapt resources and guidelines, on an individual basis, to each particular patient and to each personal situation.
- Flexibility on empowerment is needed, to allow each patient to focus on the difficulties and incidents that they have felt. It is also very important to register those difficulties perceived in order to analyse them, and contribute to adapting the personal empowerment programme.
- Inability to complete the empowerment of this patient totally.
- Lack of direction in relation to the guidelines of empowerment, surveys, opinions, satisfaction. CareWell's different interventions in which different professionals act, could have been targeted towards different people in the patient environment.
- Difficulty of a relative analysis on the effect of receipt of empowerment, distinguishing: empowered patient and empowered caregiver (an important figure in the frail elderly patients).
- Need to monitor the degree of empowerment regularly after the programme sessions are completed, to ensure an appropriate level of self-management capacity.
- The existence of a field coordinator role is essential to give support to professionals, resolve doubts, clarify distinct aspects of the protocol, and help registering information in the corresponding registries.

8.2   Croatia

Activities performed

- Patients experienced mobile app and smart TV monitoring tool with educational material. Field nurses were visiting patients on a monthly basis, and supporting the education.

Risks faced

- Patients not motivated to change any behaviour (median age 78y).

Issues occurred

- Some patients not interested in technology as such, rather in physical visit.

Lessons learnt in Croatia

- Update education materials regularly, and focus on informal carers.

8.3   Lower Silesia

Activities performed

- The process of empowerment was the result of daily work carried out by the Call Centre worker who used to work on a specific care plan, different for every patient, and tailored to the specific patient needs.
- Content of educational and information materials was based on a well known information web portal, Practical medicine, and updated by social worker.
- Training sessions for professionals and patients were conducted individually, as well as in groups.

Risks faced

- None.

Issues occurred

- None.

Lessons learnt in Lower Silesia

- To improve knowledge and experience, the training needs to be performed for professionals, as well as for patients. Using mobile application, information should be very simple and direct. The best way is to use an active participatory methodology, to collect feedback from users.

8.4   Veneto

Activities performed

- Patients have been trained on their disease and on some good practice in day-to-day life, such as vital signs self-monitoring.
- Care givers have been trained on how to manage their relative's frailty condition.
- Training material has been uploaded on the ULSS website.
- The "interactivity portal" has been developed; patients or care givers are now able to download lab results and book appointments.
- The home care nurses measured the vital signs at patient's home, helping the patient's empowerment.

Risks faced

- Patients are lazy.

- Patients are not confident with the ICT / technology due to their age.

Issues occurred

- No issue occurred in this domain.

Lessons learnt in Veneto

- Patients are lazy; for this reason, they need to be monitored and stimulated by the professionals to look after themselves.

- The care givers involvement is useful for successful patient empowerment. They help the patients when dealing with the ICT / technology device / services.

- Training sessions performed by the professionals help the patient and the care givers in their daily routine.

8.5 Puglia

Activities performed

- The empowerment process is the result of daily work carried out by the Care Manager, who developed a specific care plan different for every patient, tailored to the specific patient needs.

- Use of information materials.

- The Care Manager performs counselling activity in order to strengthen the patient position towards their chronic condition.

- Training sessions for professionals on patient empowerment for bilateral sharing of common objectives.

Risks faced

- No risks faced.

Issues occurred

- None occurred.

Lessons learnt in Puglia

- Information must be simple and direct.

- Improve knowledge and visual support to help awareness.

- Use of devices is an indirect tool to improve confidence and co-creation.

- Training needs to be performed both for professionals and patients.

8.6 Powys

Activities performed

- Powys held workshops and demonstrations on the programme My Health Online, and also E-Consultant, which encouraged patients to book appointments online; the aim of this was to develop patient empowerment.

Risks faced

- The information was being transferred via email, which had a risk of security issues, as all emails would carry important patient information.

Issues occurred

- Broadband issues in places such as Machynlleth meant that the patients could not access the internet to use the service provided.

- Not all patients were IT literate, which meant they could not engage with the programmes as intended.

Lessons learnt in Powys

- Training needs to be performed for both professionals and patients with the online programmes.

- Any issues with broadband need to be rectified in order for the programme to run successfully; this is something that Powys Teaching Health Board needs to discuss further with Welsh government.

- It is important that future projects are aware (at the earliest stage) of all the variations in technological use, access and availability of services (where they may impact the project or stakeholders), to avoid differentiation / deviation of service offerings to all patients in Powys.

9. Operational experiences on user satisfaction

Domain objective

A survey was performed at baseline and at the end of the study to measure the patient / user point of view regarding the entire experience in CareWell. Analysis was carried out to assess patient / user satisfaction regarding his/her relationship with the GP, specialist and Care Manager. The satisfaction of the entire process was assessed with specific focus on the advantages or disadvantages in using technology for remote monitoring.

9.1 Basque Country

Activities performed

- When a patient is discharged from hospital, the advanced practice nurses are notified. They call the patients and ask about how they feel. This approach is very welcome by the patients.

Risks faced

- No risks detected.

Issues occurred

- No issues occurred.

Lessons learnt in the Basque Country

- Proactive attitude of healthcare professionals who maintain a close and regular contact with patients, not being overwhelming, is very well accepted by patients and caregivers.

9.2 Croatia

Activities performed

- Focus groups and questionnaires at the beginning, and throughout the project.

Risks faced

- Patients being too supportive since they receive extra service.

Issues occurred

- No issues.

Lessons learnt in Croatia

- None.

9.3 Lower Silesia

Activities performed

- There was very important role for Call Centre worker and nurses to perform the patient / user satisfaction. They have made this very innovative service very helpful in the relationship with GP and other specialists.

Risks faced

- According to the age of patients, they were not familiar with new technologies such as smart phones.

Issues occurred

- Comparing the patient / user satisfaction regarding to relationship with the GP, specialist and Care Manager, there was a positive assessment of it regarding the entire experience in CareWell.

Lessons learnt in Lower Silesia

- Using technology for remote monitoring gave us more advantages than disadvantages to get the final satisfaction of the entire process. It was necessary to spend more time to train to the patient / user point of view regarding the entire experience in CareWell.

9.4   Veneto

Activities performed

- The PIRU questionnaire has been translated into Italian.
- The questionnaires have been submitted to the patients at the beginning and at the end of the follow-up period.
- Some patients have been interviewed on their satisfaction of the services developed within the CareWell project.

Risks faced

- No risk occurred in this domain.

Issues occurred

- The questions were not easy to understand even if formulated in Italian, due to the age of the patient.
- Elderly people required easier explanations of the questions.

Lessons learnt in Veneto

- Training professionals in giving questionnaires helps the patients' comprehension and the reliability of the patients' answer.
- Prefer an indirect way to ask information instead of direct question; this helps the patient to feel more confident and less stressed. Collecting the required information during a "friendly" chat is a good way to assure sincere answers.

9.5   Puglia

Activities performed

- PIRU questionnaire on user experience of integrated care was performed at enrolment, at midterm follow up, and at the end of the study.
- Qualitative interviews were held with professionals and patients involved in the service operation.
- Continuous informal feedback on the use of devices was reported by the local team to the core team staff.

Risks faced

- Late decision to hold qualitative interviews threatened the collection of qualitative data.

Issues occurred

- Late decision to hold qualitative interviews increased workload for care managers, because they had to plan an extra activity.
- Questionnaires which are too long could threaten patient compliance.

Lessons learnt in Puglia

- Experiences on user satisfaction must be planned at the very beginning of the project, and the use of questionnaires must be as much as possible reduced in terms of frequency and number of items.

9.6   Powys

Activities performed

- Powys Teaching Health Board held numerous focus groups and workshops with patients and stakeholders; throughout these workshops, patients were requested to complete all relevant questionnaires and information to support the assessment and qualitative aspects of the evaluation.

Risks faced

- Short timescales posed risks of completion for all the healthcare professionals and patients involved.

- The nature of the approach presents the option for stakeholders not to take part or complete the questionnaires.

Issues occurred

- Unable to obtain any patients' responses for the qualitative results.

- Limited number of healthcare professionals involved in the project meaning inability to fully complete the total number of qualitative questionnaires.

Lessons learnt in Powys

- Consider other approaches to obtaining greater numbers of completion. Not specifically a local lesson learnt, but a wider project lesson learnt is to allow sufficient time for the identification and completion of such tasks.

10. Operational experiences on technical aspects

Domain objective

Each site describes how to plan the delivery of services including the introduction of ICT tools; it lists actions planned for deployment, barrier and criticalities, strategies to overcome them, detailed timing of activities, indicators and tools to guarantee the monitoring of the complete pilot site operation. Methodology used to collate reports of issues met and addressed in pilot implementation and operational maintenance.

Report on procurement procedures, if needed, and system adaptation to implement in order to deliver the service according to workplan. Devices introduced and related platforms to be integrated. Standards used and installation team identified. Maintenance of services and protocols for quality control activities settled in order to guarantee safe and accurate data.

Procedures, technical issues occurred and overcome during installation and activation of services at patient's home.

10.1 Basque Country

Activities performed

- The health information recorded in the electronic health record of each recruited patient has been checked.
- New stratification of the population.
- Regular reminders to professionals to ensure that all information is properly registered, and highlight the most relevant aspects of the intervention already identified during the formal training sessions.

Risks faced

- There may be important differences in the degree of compliance with self-control records, either for lack of means, or difficulties in the management of instrumentation, understanding or motivation.

Issues occurred

- Duplications in analytics, scales and vital constants has been found in the electronic health record of some patients.
  - We have checked all the duplications, corrected them.
- One of the organisations did not have a previous stratification, so they had to wait until the new stratification was done.
- Unawareness about the degree of patient compliance regarding their self control and the KronikOn programme.

Lessons learnt in the Basque Country

- In order to define a sustainable care pathway supported by ICT tools, the ICT staff and the managers of the Department of Information Systems were involved in the working team from the beginning of the project. Thus, we ensured that all decisions made regarding the technology were achievable, avoiding delays and false expectations. The priorities of the technical staff and the clinical staff were aligned from the start of the project, and all of them felt that their opinion was considered to agree procedures and protocols.
- The stratification of population should be updated annually or biannually, because multimorbid population varies greatly from one month to another.

- The monthly review, for example, includes whether the patient has doubts about their pathology. We could have recorded this, together with the degree of involvement and patient compliance, in their records of self control, and collecting the limitations that they might have had in carrying them out.

10.2 Croatia

Activities performed

- Software deployed in existing ICT infrastructure, all devices delivered by ICT supplier as part of project.
- Home installation of smart TV system executed by project (FER).

Risks faced

- Delay of smart TV hubs.

Issues occurred

- Smart TV system installed with a small delay.

Lessons learnt

- None

10.3 Lower Silesia

Activities performed

- To recognise the stakeholders / providers, a conference was organised and web searched to find possible platforms to receive clinical parameters from home monitoring and information support. There was a requirement to create an intuitive interface. LSV approach was based on the idea to implement platforms that already existed on the market, to reduce the cost and apply a quick of procurement.

Risks faced

- All important features might not be identified.

Issues occurred

- It was necessary to implement three different platforms:
    - Monitoring.
    - Educational.
    - Integration, to implement the whole telecare procedure.

Lessons learnt in Lower Silesia

- Telecare procedure requires more advanced algorithms to analyse the data. It will redirect more system activity to support the patients disease self management and save time of doctors.

10.4 Veneto

Activities performed

- The professionals' requirements were taken in account to outline the update to the Territorial Information System.
- The Territorial Information System has been updated to a web-based version, including new sections related to the CareWell project.
- The system was tested several times with the different professionals involved in the project.

- Professionals were trained on the CareWell sections of the Territorial Information System. All the professional accounts were created.
- GPs were connected to the Territorial Information System via VPN.

Risks faced

- Delay in the Territorial Information System update procurement.

Issues occurred

- Delay in the system update procurement.
- Delay in the system update.
- Several tests were required in order to assure the reliability of the system and the compliancy with the codebook of CareWell, especially in the questionnaires section.

Lessons learnt in Veneto

- Public procurement requires a lot of time; for this reason, it could be useful to plan this activity in advance. Insert some penalties in case of delays within the procurement terms of contract; this may help in keeping the supplier on the activity and could assure the timing of the delivery.
- Use an ICT solution already in place to avoid training and save money and time.

10.5 Puglia

Activities performed

- Create interface between device hub software and Care Puglia software.
- Release of additional access profiles to primary care specialists.
- Platform adapted to receive clinical parameters from home monitoring and upload images.
- Identifications of type of procurement to be used. In order to do so, meetings with AReS administrative management were set up. It was agreed that the faster procurement procedure was the one to involve private hospitals in device procurement. We launched a call for interest, and selected two private hospitals that were willing to be involved in the project. We signed a framework agreement that established their involvement and listed the tasks assigned. They were appointed as responsible for the acquisition of devices.

Risks faced

- Delay in the acquisition of devices.

Issues occurred

- Identification of the appropriate type of procurement to be used.

Lessons learnt in Puglia

- Procurement of devices and equipment in public institutions can jeopardise the success of a project. Therefore it is necessary to find other alternative methodology in order to simplify the procurement procedures.

10.6 Powys

Activities performed

- Implementation and use of NHS Wales technologies (with patient cohort):
    - My Health Online.
    - Website information/Practice Websites.
    - VC / mobile communications.
- As existing NHS Wales solutions, the above solutions resulted in a cost neutral service deployment with no added procurement requirements or software procurement required to deliver the services. This excluded hardware.

Risks faced

- Implementation of solutions, development, maintenance and support is dependent on existing arrangements within NHS Wales, and therefore a lack of flexibility for direct project requirements if needed.

Issues occurred

- Delays in national rollouts resulted in delays of implementation.

Lessons learnt in Powys

- Ensure a clearly defined vision, scope and intention with each technology offering from the outset.
- Keep within the scope and resources available; do not try to over commit to under achieve.

11. Operational experiences in regulatory domain

Domain objective

Regulatory issues were taken into consideration by all pilot sites in order to make sure that activities performed, services delivered and technology put in place meet the specific legal requirement in force at a European, National and Regional level.

Legal requirements regarded the ICT system, devices to use, data protection, respect of patients' privacy and related ethical issues emerging from the adherence of patients to the study.

11.1 Basque Country

Activities performed

- Regular reminders to professionals to ensure that all information is properly registered, and highlight the most relevant aspects of the intervention already identified during the formal training sessions.

Risks faced

- No risks detected.

Issues occurred

- No issues occurred.

11.2 Croatia

Activities performed

- All patients have signed informed consent, Health Centre has approved the project through its ethical committee.
- Medical devices introduction to market information sent to regulatory body for medical devices.

Risks faced

- Project approval on time.

Issues occurred

- Informed consent needed to be updated, and project went for second approval to ethical committee.

Lessons learnt in Croatia

- None.

11.3 Lower Silesia

Activities performed

- An application was submitted to the Bioethics Committee of the Lower Silesian Medical Chamber for their opinion on the project; a number of documents were prepared:
  - A written acceptance by the head of the unit which was going to perform the study.
  - Informed consent and the processing of data related to participation in the research project CareWell.

- Consent to use the archival material.
- The applicant's statement of the knowledge of the rules of medical confidentiality contained in the Act on the medical profession and the Law on the Protection of Personal Data.

- The necessary documents were prepared in consultation with a lawyer, e.g. contract to lend equipment to patients, contracts with contractors of tasks, contracts with staff.

- Contractors of platform were responsible for data protection; the medical team operates in accordance with the Law on Personal Data Protection.

Risks faced

- Not all important features are possible to be identified.

Issues occurred

- Difficulties in preparing the necessary documents, amendments, difficulty in consultation with a lawyer.

Lessons learnt in Lower Silesia

- The necessary documents were prepared and the consent obtained from the Bioethics Committee of the Lower Silesian Chamber of Physicians.

11.4 Veneto

Activities performed

- The operational protocol has been drafted and submitted to all the relevant professionals and approved by the principal investigator.

- The consent form was drafted and approved by the legal affairs office.

- Patients were informed of the purpose for the collection of personal data as prescribed by the privacy law.

- Data security has been assured in compliance with the national law on data protection. Each user received personal credentials.

- The project was submitted to the Ethical Committee.

Risks faced

- The regional government is planning the Regional Health system reorganisation including reducing the number of Local Health Authorities.

Issues occurred

- No issues occurred in this domain.

Lessons learnt in Veneto

- We uploaded all the consent forms on the CareWell section of the Territorial Information System, allowing easy consultation of the consent and collection of personal data forms by all the professionals involved.

11.5 Puglia

Activities performed

- The operational protocol has been drafted and presented to all professionals (GPs, specialists, Care Managers) during dedicated meetings.

- Patients were informed of the purpose for the collection of the personal data as prescribed by the privacy law; each patient signed informed consent before enrolment.

- Data security has been assured in compliance with the national law on data protection. All professionals received specific credentials to have access to the ICT platform. Access to patients' data was allowed for different levels of responsibilities according to the professional role and under current professional accreditation. The ICT platform data flow runs on the regional protected line "Rupar" which guarantees the highest level of data protection (access by smart card); each professional who has access from locations external to the public RHS has VPN credentials; all patient data was anonymised according to international rules and the one in force at national and regional level.

- The informed consent used in CareWell was the same one used for the regional Care Programme already ongoing in Campi Salentina site. Only a paragraph referring to the use of devices was added and communicated to the ethics committee.

- A collaboration between site, private hospitals, AReS core team and devices company to achieve a framework agreement for device acquisition was established to avoid the long time required for tender procedures.

Risks faced

- Delay in the acquisition of devices.

- Data protection on access to platform from professionals not connected to the Rupar.

Issues occurred

- Identification of type of procurement to be used.

- Need to find technical solution to ensure protection of sensitive data flowing out of the Rupar structure (VPN).

Lessons learnt in Puglia

- We learnt that procurement and ethic issues are weak points in European projects, and shared solutions among partners can help overcoming delays and difficulties.

11.6 Powys

Activities performed

- The ICT systems, and the devices to use in respect of this project, already complied with existing patient privacy and related ethical regulations and requirements (i.e. Data Protection Act 1998).

- A formal ISP (Information Sharing Protocol) was implemented to support the regular sharing of personal information for Powys teaching Health Board's CareWell project. The ISP covers the exchange of information between Powys teaching Health Board, Opinion Research Services, and four GP practices (Builth Wells, Presteigne, Cemmaes Road Machynlleth, Welshpool); anonymised data is sent to data warehouse within the EU via secure network.

- Patients enrolled on the project signed a disclosure agreement with the Health Board to agree that their data would be used for the purposes of the project. Patients also agreed for their data to be collected from organisations outside of NHS Wales. As part of this, the Health Board also ensured that all data was securely transmitted, and that all data was anonymised before leaving Powys teaching Health Board.

Risks faced

- If there was any breach in the termination section of the agreement, the agreement may be terminated with immediate effect.

- Without the individual patient consent, data from outside of NHS Wales could not be collected.

Issues occurred

- Some patients included in the project live within Powys, but have received treatments in another UK country, i.e. England. Whilst there are data sharing arrangements and procedures in place to access this data, it can be time consuming to obtain the full patient record, with a lead time of 4-6 weeks.

- This is the minimum time period allowing for the data to the extracted and cleansed from the English data warehouse, and for the data to the anonymised in the correct format and submitted to a data warehouse in the EU.

Lessons learnt in Powys

- Full scoping of a project needs to take place with colleagues from a governance perspective. GP practices needed more assistance to identify the patient cohort and collect data than was first envisaged.

12. Operational experiences on strategic alliances

Domain objective

To ensure that key stakeholders are represented from across the sector. Concrete task to manage the sustainability of the CareWell service such as identification of specified organisations for reimbursement / payment, technology, organisational change management and development / implementation of the pathways, evaluation and regional development. Create the right environment in order to facilitate the take off of the CareWell service, and in the long term define which are the stakeholders that need to be aware and involved in the process of introducing new organisational models that include the introduction of ICT support systems for remote monitoring patients at home.

Appropriate communication and results sharing mechanisms should be in place, as well as planning for future service development, to make the stakeholders involved resilient to change. Improve flow of information among professionals to succeed in delivering integrated care to multimorbid and frail patients.

12.1 Basque Country

Activities performed

- We have created a great collaboration environment between the professionals performing the intervention and the evaluation team. This helped a lot to align the objectives of all the stakeholders; the perspectives of all of them are considered when decisions are made.
- Incorporation of the staff of the System Information department of Osakidetza to the core working team.
- Close collaboration of the Healthcare Directorate of Osakidetza in the design of the intervention.
- Regular reminders to professionals to ensure that all information is properly registered, and highlight the most relevant aspects of the intervention already identified during the formal training sessions.

Risks faced

- No risks detected.

Issues occurred

- No issues occurred.

Lessons learnt in the Basque Country

- Problems and incidents related to technological platforms required for CareWell (EHR, PHF…) are solved much more easily and faster if the technical staff are on board from the beginning of the project.
- Aligning the objectives of the intervention deployed with the strategic plan of the Healthcare Directorate of Osakidetza facilitates the up-scaling process.

12.2 Croatia

Activities performed

- Involving national insurance in project, involving other health centres.

Risks faced

- National insurance will not be interested in services.

Issues occurred

- Without data from project, it is difficult to go beyond initial meetings with insurance to talk about reimbursement.

Lessons learnt in Croatia

- None

12.3 Lower Silesia

Activities performed

- The CareWell environment was created in the Geriatric Centre of The A. Falkiewicz Specialist Hospital in Wroclaw. The CareWell services were implemented by integrating three platforms: monitoring, integration and education / communication. In the long term, the stakeholders that need to be aware and involved in telecare will be supported by self management procedures.

Risks faced

- Not all patients can take responsibility to manage their health using new technology.
- The GPs did not see the benefits.

Issues occurred

- It was a problem to involve GPs in CareWell services. They did not expect any support from this service.

Lessons learnt in Lower Silesia

- There is a need for more advanced algorithms to control and share the data. Alarms procedure should be supported by communication issues. We will request more responsibility from patients and informal carers.

12.4 Veneto

Activities performed

- The CareWell project has been inserted in the "Patto Aziendale" (the GPs incentives programme).

Risks faced

- The GPs were scared of the extra work that the project could entail; for this reason, they were reluctant in taking part in the project.

Issues occurred

- Some GPs decided to stay out of the project.

Lessons learnt in Veneto

- Strategic stakeholders may use their role to bargain for better conditions. Involve the leaders of the stakeholders in the project and in the deployment activities, and push further the compliance of the professionals. Economic incentives could help the bargaining process.

12.5 Puglia

Activities performed

- Care manager additional training to reduce risk of patient's loss of compliance.
- Wide communication on the project goals help to increase membership.

- Involvement of both GPs and specialists and top management to reduce resistance.
- Stakeholders' strong involvement (meetings, site visits) to improve compliance.

Risks faced

- Patients' loss of compliance and withdrawal during the operation of pilot.
- Lack of stakeholders' cooperation and difficulties in project launch.

Issues occurred

- Diffidence in the use of ICT and devices by patients.
- Increased workload for professionals because it was necessary to dedicate more time to patients in order to reduce diffidence.

Lessons learnt in Puglia

- Involvement, training, knowledge and broad communication are the keys to improve strategic alliances.

12.6 Powys

Activities performed

- A strategic alliance assessment was carried out to determine how and where the CareWell project strategically aligned with Powys teaching Health Board's strategic plan. This is reviewed annually in line with Welsh government's requirements. See below.
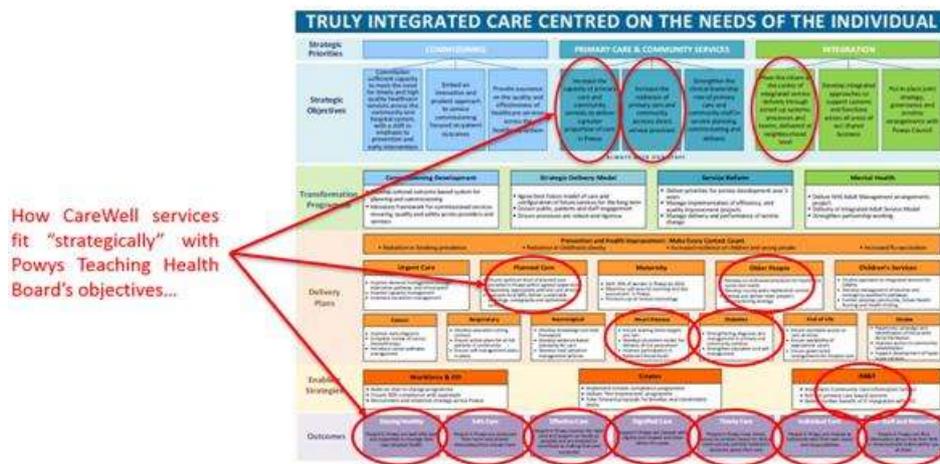
Risks faced

- Strategic alliance is fundamental to ensuring that stakeholders are fully engaged and understand what effect it has in the wider context of the strategic aims of the Health Board; without this, there is a risk of lack of commitment and focus given the many priorities of all stakeholders.
- NHS Organisations in Wales have a requirement to agree with local government their IMTP (Interim Medium Term Plan); in conjunction with this, it is important to demonstrate (where applicable) any projects or work that we do, and how these contribute to the plan.

Issues occurred

- Engagement, commitment and inclusion was difficult at the initiation of the project, as little work was done to "demonstrate" how CareWell strategically aligned with

the wider aims, objectives and plans of the Health Board. As a result, stakeholders struggled to understand the perceived benefits, therefore withdrawing from the project. This was addressed during year2 of the project with presentation and illustration (as above) of how this contributes, is aligned and affects the wider plans and strategic objectives of the Health Board.

Lessons learnt in Powys

- It is imperative that any future project is assessed effectively, and strategic alliances not only identified but also documented, along with how the project can impact strategic objectives (before initiation).

13. Operational experiences on help desk

Domain objective

Help desk services were set up and run to respond to problems faced by staff, patients and older people. The activated teams are operational at each site, supported by the core team.

Help desk provides support to the site operation on all the issues that arise in both the implementation and deployment phases.

Each site defined the flow of information among users, support team, core team and installation team so that all the issues that arise got to the right end point for appropriate answers.

All the information gathered by the service provided by help desk was uploaded in the RAIL tool.

13.1 Basque Country

Activities performed

- The field coordinator role gives support to professionals, resolves doubts and clarifies distinct aspects of the protocol.
- The information system department supports users in the use of the ICT tools. In practice, the field coordinator has been in charge of communicating incidents detected by front-line professionals to the IT team.

Risks faced

- No risks detected.

Issues occurred

- No issues occurred.

Lessons learnt in the Basque Country

- The existence of a field coordinator role is essential to give support to professionals, resolve doubts, and clarify distinct aspects of the protocol.

13.2 Croatia

Activities performed

- Field nurses participating in pilot were available on-call for patients.

Risks faced

- Patients will call too frequently for issues other than project.

Issues occurred

- Patients did not call frequently; availability of service was enough for them.

Lessons learnt in Croatia

- None.

13.3 Lower Silesia

Activities performed

- A Call Centre / Contact Point has been established; it employed one person. Platform for monitoring was implemented to collect patients' measurements.
- Training for call centres and other team members.

Risks faced

- In case of illness or leave, one person in call centre is not enough - the problem is one of replacement. It is too much responsibility for one person.
- There are no teams to cooperate in appropriate configurations of specialists.

Issues occurred

- Too many technical problems (caused by poorly set alarm notifications on the platform) in the daily monitoring of patients' measurements combined with other duties imposed on a regular basis.
- Repeatedly, the call centre employee had to work after hours to complete on time duties mainly related to the organisation of meetings, training within a specified period.

Lessons learnt in Lower Silesia

- There is a need for longer call centre hours, because patients are calling from 07:00 to 23:00 and on weekends. It is needed especially for informal carers who usually work during the day. Since it was not possible to change the settings of alarm notification on the platform due to the design assumptions, it was necessary to help doctors in monitoring patients. In case of additional work associated with the project, it was not possible (in this situation) to simultaneously monitor alarm notifications and contact patients. There is a need for professional help, as well as implementation of more efficient algorithms for analysis of alarms for the Call Centre.

13.4 Veneto

Activities performed

- The help desk service has been activated.
- The help desk has been managed by the CareWell team at local site.
- The help desk is available via phone or directly at the GP's practice.
- The help desk activity has been carried out remotely or directly at the professionals' practice.
- The help desk service supported all the professionals during the follow-up period and beyond.

Risks faced

- No risk occurred in this domain.

Issues occurred

- Technical problems required physical meeting at the professionals' practices; this service required more time and effort.

Lessons learnt in Veneto

- Help desk service has to provide support at the professional's practices, especially for all the problems related to the technical aspect, in order to be really helpful for all the professionals involved in the project.

13.5 Puglia

Activities performed

- A dedicated green number was activated in order to support care managers with technical issues on devices.
- The installation team was composed of care managers appropriately trained in the installation and use of devices; therefore patients referred to them for any technical issues.
- In case of organisational or extraordinary technical problems, the local team would call the core team staff.

Risks faced

- Corrected use of devices could be threatened because of insufficient experience of care managers in managing device calibration.

Issues occurred

- Increase in care managers' workload.
- Need of a clinical engineer to manage telecare and telehealth systems in routine practice.

Lessons learnt in Puglia

- The deployment of telecare and telehealth services at scale needs a multidisciplinary team.

13.6 Powys

Activities performed

- First point of contact for CareWell related patients implemented, supported by the CareWell coordinator role for communication (in and outbound) with patients.

Risks faced

- Multiple methods of contact required due to many patients not having access to email, telephone, internet etc.

Issues occurred

- Inability to contact all patients in a timely manner to meet deadlines.

Lessons learnt in Powys

- None.

14. Quality management and support for maintenance

14.1 Basque Country QA Implementation

14.1.1 Quality Assurance team composition

The quality team consisted of:

- Field trial coordinator (Osakidetza).
- Project manager (Kronikgune).
- Technical team (Osakidetza).
- Evaluation team (Osakidetza / Kronikgune).

They were located at:

- Tolosaldea ICO, Tolosa.
- Kronikgune office, Barakaldo.
- Osakidetza central headquarters, Vitoria.
- Biodonostia Reasearch Unit, Donostia.

14.1.2 Quality Assurance responsibilities

The field trial coordinator is responsible for supporting healthcare professionals, providing training to clinicians, assuring that the protocol is carried out as planned, and the information required is properly collected, detecting deviations and applying corrective action when needed.

The project manager coordinates the whole project, ensuring that all stakeholders perform the actions expected, links the EU project requests and the local needs, and vice versa, documents progress, and contributes to the corresponding deliverables.

The technical team is in charge of maintaining all services up and running, and solving any incidents that occurred with the Electronic Health Record, e-prescription, Personal Health Folder or online Health School section of Osakidetza's website.

The evaluation team validates that all information gathered is correct and its format is appropriate, cleans the files if needs, registers the information in Osakidetza's databases, and uploads data files into Arsenal central database.

14.2 Croatia QA Implementation

14.2.1 Quality Assurance team composition

The quality team consisted of:

- HDFEZ senior care manager.
- Field nurse.
- ENT support engineer.
- FER support engineer.

They were located at:

- HDFEZ office, Zagreb.
- Primary care healthcare centres, Zagreb.

- Ericsson Nikola Tesla, Zagreb.
- University of Zagreb, Faculty of Electrical Engineering and Computing, Zagreb.

14.2.2   Quality Assurance responsibilities

HDFEZ senior care manager was responsible for the overall quality care.

Field nurse was responsible for the functioning of the help desk and medical and operational issues. She worked toward fostering acceptability of new home multimedia devices.

ENT support engineer responsibility was to provide technical support to the site operation for the part developed by the ENT team.

FER support engineer responsibility was to provide technical support to the FER part of the site, including development issues, errors and updates to ensure the quality level of the site. It also included testing and supporting the helpdesk.

14.3 Lower Silesia QA Implementation

14.3.1   Quality Assurance team composition

To effectively ensure the quality of services in A. Falkiewicz Specialist Hospital, there are developed standards, procedures and instructions for performing tasks. This activity is coordinated by the "Quality Coordinator" who is responsible for the overall quality policy in the hospital. Other persons are involved in each particular issue if necessary.

14.3.2   Quality Assurance responsibilities

The primary objective of the A. Falkiewicz Specialist Hospital is to provide health services in the field of hospital and specialised outpatient care. To achieve this purpose, the hospital performs a series of tasks aimed maintaining, saving, restoring and improving the health of the patient. Determination of specific measurable objectives and monitoring usage of the principles are at the starting point for the implementation of the quality management system which complies with the requirements of the accreditation of Centre for Monitoring Quality in Health Care (CMJ), which is the central unit of the Ministry of Health. It was established by the Minister of Health in 1994, in order to inspire and support measures to improve the quality of medical services provided by the Polish health care facility. Statute of CMJ was determined by decree of the Minister of Health of 2 July 2010. (Dz.U.M.Z 2010. 9, pos. 59).

14.4 Veneto QA Implementation

All the activities carried out within the CareWell project have been developed by the Local Health Authority. Professionals from different department have been involved in the activity related to the project itself.

14.4.1   Quality Assurance team composition

The quality team consisted of:

- Primary Care Director.
- Project Manager of CareWell.
- Data Manager of CareWell.
- Territorial Information System officer.
- Management audit officer.
- GPs.
- Home Care Nurses.

14.4.2   Quality Assurance responsibilities

- The Primary Care Director is overall responsible, in particular for the clinical data.
- The Project Manager of CareWell is responsible for the implementation phase, and for support and help desk provision.
- The Data Manager of CareWell is responsible for the data collection and upload to the project database.
- The Territorial Information System officer is responsible for the Territorial Information System, including the collection of the data required by the project and available on the Territorial Information System. He is also responsible for the all the technical issues.
- The management audit officer is responsible for all the resource consumption analysis, and for the data on hospitalisations.
- GPs are responsible for the patients' care, and for the enrolment phase.
- Home Care Nurses are responsible for the new services delivery and for the follow-up phase.

14.5 Puglia QA Implementation

14.5.1   Quality Assurance team composition

The quality team consisted of:

- Quality manager (A.Re.S Puglia, located in Bari).
- Data Manager (A.Re.S Puglia, located in Bari).
- Core team staff (A.Re.S Puglia, idem).
- Local team staff (Campi Salentina site LHA Lecce; Canosa di Puglia site LHA BT).
- Installation team (Campi Salentina site LHA Lecce).

14.5.2   Quality Assurance responsibilities

Quality manager is responsible for monitoring all procedures related to project management. coordinating the whole project and ensuring that all stakeholders perform the actions expected, and linking the EU project request to local needs and vice versa, and guaranteeing the outcomes of the project.

Data manager is responsible for all data collection, uploading, control and validation, and correct application of the project code book. She acts as facilitator in the qualitative interviews administration and summarises the results.

Core team staff are responsible for supporting healthcare professionals, providing refresher training sessions to care managers, ensuring that the protocol is carried out as planned, and supporting the local team in case of organisational and extraordinary technical problem.

Local team staff are responsible for the routine control of the activities performed at the site, and report to quality manager and data manager on any deviations from the protocol and planned activities. The local team is also responsible for the correct use and functionality of devices, since the Campi installation team is part of the local team.

14.6 Powys QA Implementation

14.6.1   Quality Assurance team composition

The Powys Quality assurance team's composition is based on its project board, consisting of:

- Project Senior Responsible Owner.
- Project/Programme Manager.
- Financial Lead.
- ICT Technical Lead.
- Legal (senior Information Lead).
- Clinical Lead.
- GP Practice Leads.
- Facilitator Leads.

The above members are located across the Powys region of Wales at varying locations and participate via face-to-face, videoconference and telephone when required.

14.6.2   Quality Assurance responsibilities

The Senior Responsible Owner, supported by the Project/Programme Manager, is responsible for the overall quality assurance of the project and information provided by Powys Teaching Health Board.

Each quality assurance / project team member is responsible for ensuring that all aspects of information, data and project documentation submitted, relative to their area of expertise, is reviewed and accepted before submission via the Senior Responsible Owner and Programme Manager. Where applicable, the Quality Assurance team can also seek advice and endorsement from the Health Board executive team.

15. Coaching of six Pilot site operations

A.Re.S. Puglia ensured adoption of a coherent approach across all pilot sites by performing a "coaching" role. To that extent, AReS was responsible for managing the RAIL tool. One-to-one teleconferences with pilot sites were performed in order to standardise the uploading of information into the tool; periodic warnings were sent to sites to enhance the tool utilisation, making sure that descriptions of activities were as detailed as possible. AReS also defined the outlined of the deliverable D6.2 and coordinated the collation of the information across the six sites.

16. Conclusion

Despite the differences in context, the issues encountered and lessons learned seem to be very similar.

The deployment of an integrated care model with the introduction of devices demonstrated to be based correctly on the deepening of the envisaged domains.

The most frequent weaknesses appeared to be in the following domains: ethical, legal, and organisational, since the most reported issues referred to procurement procedures, data protection and respect for ethical principles and legislation.

All patients across the sites show satisfaction and adherence to device use. GPs and Care Managers showed resilience to the integrated organisational model; a little bit more difficult was the involvement of specialists.

A strong commitment from top management is fundamental in order to ensure the deployment at scale of the model.

Important investments need to be planned at the outset, and regular economic contribution need to be considered to maintain the process.

Long term monitoring on the integrated organisational model needs to be performed to provide strong evidence and continuously improve the quality of services.