

Issue
06

September,
2015

Newsletter



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eSMART: Randomised controlled trial to evaluate **electronic Symptom Management** using the **Advanced Symptom Management System (ASyMS)** **Remote Technology** for patients with cancers

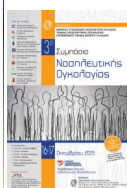
A European trial aims to demonstrate benefits for cancer patients using a real-time, mobile phone based remote patient monitoring system, the Advanced Symptom Management System (ASyMS). It is anticipated to greatly improve patient outcomes and delivery of care both during and after chemotherapy treatment. [+Find out more](#)

WELCOME

Future Events

• [3rd Hellenic Oncology Nursing Symposium](#)

Thessaloniki, GR, 16th – 17th October, 2015



Dr Stylianos Katsaragakis
“Can remote technology improve supportive care in cancer patients? The eSMART project”



Prof Roma Maguire
University of Surrey

I'd like to welcome all of you back after the summer break. Since the last issue of our newsletter, a lot has happened. I am very pleased to announce that our first site, the Royal Surrey County Hospital, is now open and ready to recruit patients into the eSMART study. We anticipate that other sites will start in the coming weeks. This issue of the newsletter covers hints and tips on using the patient recruitment system, further background regarding the eSMART technology and interviews with people who are involved in the eSMART study. Thank you for your continued support and all the best with patient recruitment!

eSMART NEWS

eSMART published on EU Horizon2020 website

“eHealth application to improve care for cancer patients”



Chemotherapy can have a considerable impact on patients' quality of life, causing nausea or hair loss as well as depression and anxiety. More personalised care could help many patients and even improve outcomes. The EU-funded project eSMART is putting a mobile phone-based remote patient monitoring system to the test.

In traditional clinical practice, cancer patients will have chemotherapy in a healthcare facility and then go home for a period of two to three weeks before coming in for the next cycle. While they are at home, they have to manage their symptoms, deciding for themselves which symptoms are problematic and should be healthcare professional.

For some, this means not reporting symptoms as and when they occur, thinking they are not serious enough to bother their doctor or nurse. Later on, at the next appointment, the patient will then have to recall how he or she has been over the last few weeks – a rather difficult task.

“The beauty of mobile health applications is that they can monitor patients and their symptoms within their homecare setting,” says the University of Surrey's Roma Maguire, deputy coordinator of the **eSMART** project. “Symptoms of clinical relevance can be reported as and when patients experience them. Within a few minutes, the health professional can call them back and deal with that symptom, ultimately managing that symptom much earlier on and preventing it from getting worse.”

Read the full article [here](#).

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This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement number 602289

INTERVIEW



Dr Grigorios Kotronoulas
Research Fellow in
Cancer Care, UoS

Dr. Grigorios Kotronoulas is a Research Fellow, a trained nurse with clinical experience in the area of cancer care and 10 years' experience in cancer care research. He has been extensively involved in studies employing quantitative methodologies in the UK and Greece.

What has driven you to oncology nursing and research?

"A series of fortunate professional and personal circumstances. Working as an oncology nurse has been a tremendously rewarding experience ever since. When research came into picture, I just realised that getting information and investigating it in order to learn something new has always fascinated me. As clinicians we are bound to stay up to date with research to improve our practice; if conditions are right, we may get to do research too."

What is your role in the eSMART project?

"I am one of the study co-investigators and a member of the Glasgow team. My current role mainly revolves around aspects related to use of questionnaires (i.e. approvals/permissions/licences and translations), patient recruitment estimates, and clinical site training."

Who are the other researchers you collaborate closely with (either within eSMART or wider academic community)?

"The Glasgow team are my main close collaborators, but I have been working closely with eSMART partners too, mainly colleagues in Ireland, Norway and Greece. Other collaborations include a number of colleagues from the School of Health Sciences at the University of Surrey, Surrey Sleep Research Centre, and lately Northumbria Centre for Sleep Research."

What is your best moment to date conducting research for eSMART?

"Getting permission for one of the study questionnaires after having spent 16 months in negotiation about legal issues. You stop complaining about all those little delays that happen in everyday life after having dealt with the beast."

Are there other settings besides chemotherapy where you think mHealth can be used in cancer supportive care?

"eHealth and mHealth is our present and our future. There is no real limit when it comes to enhancing supportive care for people with cancer and their families through eHealth or mHealth. Of course, chemotherapy is the focus of

the eSMART project, but the benefits of mHealth can be extended to other treatment modalities like surgery, radiotherapy or hormone therapy, as well as survivorship or palliative care... any phase in the cancer journey, really. Where timely communication between patients, families and clinical teams is a priority, there is a place for mHealth."

Finally, what do you enjoy doing when you're not working on the eSMART project?

"As far as research is concerned, I just go back to my work on the assessment and management of sleep/wake problems in people with cancer and family members. This has been my main clinical and research interest for about a decade now. Outside work, you'll find me enjoying inspiring food in good company, chilling out with a good film or my favourite rockers' music, playing board games till the small hours, or watching (sometimes, even playing) the occasional basketball game. If I ever get over my laziness and buy a bike, people will get to see me cycle my days away too."

eSMART IN CONGRESS



Dr Eileen Furlong
University College
Dublin

eSMART at ARCH Breakfast Briefing



Applied Research for Connected Health (ARCH) is the industry-driven technology centre for connected health research in Ireland. ARCH provides access to world class clinicians, academics and patient cohorts to explore and evaluate potential connected health solutions for the global market. The ARCH multidisciplinary research team works with industry partners to conduct applied and innovative research across three pillars: Care, Change and Data, as well as sustainability, to explore and evaluate the adoption of connected health solutions.

On the 16th July ARCH Director invited the UCD eSMART Research team from the School of Nursing, Midwifery and Health Systems to give a 'breakfast meeting' presentation entitled 'Monitoring patients undergoing chemotherapy using mobile phones'. The presentation was facilitated by Dr Eileen Furlong, Mr Andrew Darley and Dr Patricia Fox. The large audience consisted of people from the fields of industry, research,

healthcare, pharmacology, information technology, business and health economics.

The 45 minute presentation provided an overview of the use of remote technology in cancer care followed by a synopsis of the eSMART study and its main components. The clinician and patients handsets were available for people to view and directly engage with the 'live' system. The final part of the presentation focused on the challenges of conducting such a complex study at 14 clinical sites across Europe. The interest generated by the presentation and the interest in the use of technology in clinical practice, and in particular cancer care, raised a large number of questions from the audience, lastly an additional 60 minutes! The questions and comments were about the feasibility and conceptualisation of eSMART, the nature of technology involved and its intended impact on patient care and health economics.

"Our last Breakfast Briefing with Dr Eileen Furlong on 'Monitoring Patients Undergoing Chemotherapy Using Mobile Phones' was a great success" ([ARCH Newsletter, September 2015](#))



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Technical Background to eSMART



Margaret Moore
Research Support Assistant

The ASyMS Patient Handset

Because most people have to manage the side effects of their chemotherapy treatment at home, it is important to look at ways of supporting them to manage their symptoms. Patients in the intervention group of this randomised control trial will receive a mobile phone (handset) with the ASyMS “app” on it, and also a tympanic thermometer.

The patient handset is a key component of the ASyMS system as the patient uses it to send details of symptoms that s/he may suffer during his/ her chemotherapy treatment. Patients will be asked to complete a short symptom questionnaire on the handset once a day and anytime they feel unwell.

The symptoms are ones commonly experienced by people undergoing chemotherapy: nausea, vomiting, diarrhoea, constipation, sore mouth or throat, changes in sensation in their hands and/or feet, soreness of their hands and/or feet, flu-like symptoms, fatigue and pain.

For each reported symptom they will be asked how severe it is and how much it bothers them. They are also asked to take and record their temperature. For some symptoms, additional questions are asked.

This information is then automatically sent to the eSMART computer system, which uses a risk

algorithm to analyse the data. Depending upon the severity of the symptoms, the system will trigger an alert to clinicians (received on the nurse handset). If the symptoms are moderate an amber alert will be sent and a clinician will call the patient within 4 hours. If the symptoms are severe then a red alert will be sent and the

clinician will call within 30 minutes.

A patient, who has triggered an alert, will receive self-care advice on the handset, linked to their symptoms. There is also a library of helpful information for people undergoing chemotherapy, such as advice on feelings and emotions and living with and beyond cancer.



Behind the scenes

The risk algorithm has been developed and refined over previous ASyMS studies, taking into account the feedback of clinicians and patients and has been approved by the eSMART partners. For each symptom there are rules which determine when a red alert will be generated and when an amber alert will be generated. For some of the symptoms e.g. nausea, the rules take into account the reported bothersomeness as well as the severity. Other symptoms have more complex rules e.g. if the patient has reported diarrhoea then the risk algorithm also takes into account whether or not the patient is on capecitabine. Full details of the

reported symptoms can be viewed by clinicians on the secure eSMART web system.

The largest challenges for the patient handset related to fact that it needed to be in several languages. A phrase in English may take more space when translated into Greek or Austrian so it was harder to design the layout on the handset and keep the text legible. Also the questions had to be translated, keeping the same meaning and being easy to understand in English, Austrian, Greek and Norwegian. This all needed checking. During this checking process we came across differences in the use of language. For example the patient handset displays the patient's title, first name and last name on the

opening screen. Another technical consideration was the fact that the handsets will be used in several countries. There are different mobile network providers involved so roaming SIMs have been supplied, to reduce the risk of the handset not being able to send the symptoms to the server.

Having successfully tackled those challenges, the handset now enables the patient to send details of their symptoms to the system and any ones which generate an alert will also be sent to the nurse handset. With the technical requirements in place, the study is now ready to take off and patient recruitment can commence.

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PROMASYS Hints and Tips



Mrs Beth May
Data manager, Surrey
CRC

Our randomisation system, the PROMASYS database, is now live. Sites and staff have been trained and are beginning to use the system. We have therefore compiled a few hints and tips for users to get started.

Set-up:

•Please use Google chrome  for entry and ensure popups are allowed for the website.

•Please make sure that you change your password when you first log in and never share your user name and password.

•If you forget your password enter your user ID and click on 'Forgot your password', a new password will be sent to your email. Log on using that password, and change it immediately!

General user notes:

•All values are initially set to '?' (Unknown). If a value is unknown please set the value to '!' (Missing). No data points should remain as '?'

•Please make sure you log off at the end of each session to release license (Do not simply close internet browser).

Shortcuts:

•If you select a value with your mouse move to the next data point using return or tab to 'save' the value and not be asked "did you want to save?".

•Spacebar is a shortcut to enter today's date.

•For 'yes/no' selection buttons, 1 is a quick key for 'yes' and 0 is a quick key for 'no'.

Specific data items:

•Ensure gender and study centre are correct upon initial selection as these cannot be corrected later.

•Ensure cancer type is correct as this cannot be corrected later and is used in the randomisation process. If this is not correct then please contact the eSMART team!

Filtering:

•It is possible to search for a participant by typing in their subject id or subject number into the relevant search box and click on filter, remember to remove the filter after you have finished.

For further guidance using Promasys, please have a look at the manuals that have been sent to you together with your log-in details. Any user queries should be sent to:
CRC esmart@surrey.ac.uk

PREVIOUS ISSUES

The eSMART Newsletter is a monthly way to share the latest news and information about eSMART project.

Each edition provides updates regarding study's progress, meetings & publications and up-coming events. It also includes a focus on a specific clinical site, introducing key people and sharing patients' experiences and "clinical pearls".

Each issue reaches inboxes on the beginning of the month.

If you wish to receive the eSMART Newsletter automatically every month, please provide us your email address. You can also find previous issues of eSMART Newsletter [here](#).

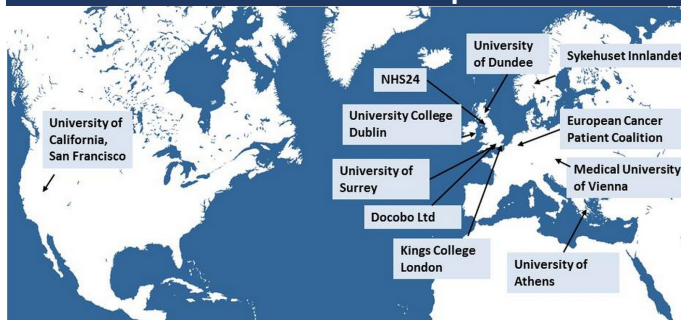
YOUR FEEDBACK

We value your opinion and invite you to share your thoughts about the eSMART newsletter with us: esmart@surrey.ac.uk

eSMART PARTNERS

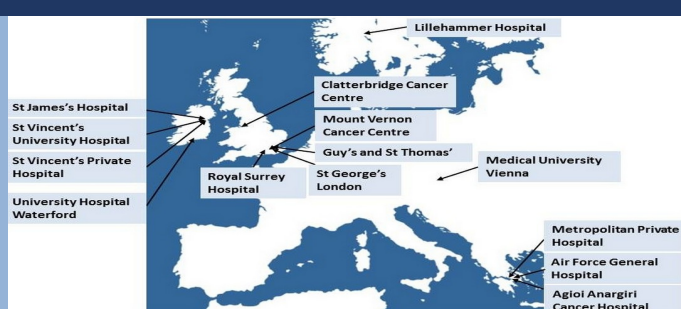


Location of eSMART Partners map



Partner	Clinical Site	Partner	Clinical Site
Vienna	Medical University Vienna	Athens	Agioi Anargiri Cancer Hospital
Dublin	St James's Hospital		Metropolitan Private Hospital
	Waterford Regional Hospital		Air Force General Hospital
	St Vincent's University Hospital	Oslo	Innlandet Hospital Trust
	St Vincent's Private Hospital	London	Mount Vernon Cancer Centre
Surre	Clatterbridge CancerCentre		Guy's and St Thomas'
	Royal Surrey County Hospital		St George's London

Location of eSMART Clinical Sites



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