

Global CME Impact Award 2018

PCM Scientific application (prepared by Chris Walsh, Director | March 2018)

1. Program details

Activity title: CORE: hand-in-hand in heart failure

Partners: In Vivo Academy Limited (IVA)

Activity dates: October 2016 to June 2017

Proof of accreditation, unbiased, and/or evidence-based medical education

CORE was designed to provide CME-accredited education for cardiologists, GPs and specialist HF nurses in the heart failure (HF) multidisciplinary team (MDT) across 6 different countries. It was necessary therefore to gain CME accreditation on a global and national level through the following organisations and accrediting bodies:

- European Board for Accreditation in Cardiology (EBAC)
- International Council for Nurses (ICN)
- Alliance for Best Practices in Health Education (ABPHE)
- Australian College of Rural & Remote Medicine (ACRRM)
- Canadian Cardiovascular Society (CCS)
- The College of Family Physicians Canada (CFPC)
- Royal Australian College of General Practitioners (RACGP)
- Medizinische Universität Innsbruck

Activity summary

Programme rationale

The European Society of Cardiology recommends multidisciplinary management programmes in order to encourage an integrated approach to patient management and treatment to meet the expected standards of care for patients with HF. Despite this, there is a global trend of poor communication and collaboration between members of the HF MDT. This results in a lack of knowledge and sub-optimal application of international guidance, leading to substandard patient outcomes.

These observations were validated by our global needs assessment survey of 340 HCPs who manage patients with HF. The results demonstrated poor interaction and collaboration among the MDT, for example:

- <50% of nurse respondents said they do not interact with other MDT members at any stage of HF management
- Although 75% of primary care physicians (PCPs) communicated with cardiologists during diagnosis, significantly less interacted with cardiologists at any other stage.

Existing professional education in HF was largely restricted to specialists, and there was an unmet need for freely available, expert-led education aimed at the wider MDT. Education that could overcome local and personal challenges called for a truly exceptional, localised and personalised solution – the CORE programme.

INNOVATIVE – The CORE programme’s scope, aims, development framework and educational formats make the programme a first of its kind for education in HF.

Programme design

CORE provided high-quality educational offerings to all cardiologists, GPs and specialist HF nurses who wished to improve their HF patient outcomes, and aimed to create change in clinical practice through flexible, interactive teaching, and a completely individualised approach to education. The programme aimed to transform clinical practice in HF and ultimately decrease hospitalisation among our learners’ patient cohorts through 4 educational goals:

1. Increasing prompt diagnosis of HF

2. Improving the use of appropriate interventions in HF
3. Improving disease management through better comorbidity competence
4. Increasing multidisciplinary collaboration and communication, including referral to and interaction with cardiac rehabilitation and palliative care services

These aims were subsequently spilt into smaller, more specific learning objectives per module, which were measured via a range of assessments. By the end of the CORE programme, HCPs should have measurably improved in attitude, knowledge, confidence, competence and practice to consider the education a success.

Educational development and deployment framework

COLLABORATIVE: PCM Scientific and the Steering Committee designed and implemented an educational cascade framework that would allow for the ultimate goal of deployment: that participants could receive education that was not just localised and translated but 'personalised' for their educational needs and those of their fellow participants receiving the education together on the day.

- **Global Steering Committee:** 9 world-leading experts defined the programme strategy, oversaw the global needs assessment, and created the global curriculum
- **6 National Faculties:** 24 National thought-leaders from the CORE target countries – Austria, Australia, Canada, Spain, Sweden, UK – oversaw localisation and translation of the global curriculum to create education that was adapted for the national level
- **Country Facilitators:** 120 proven educators. These were cardiologists, GPs and specialist HF nurses with a proven track record for delivering high-quality, interactive medical education. Country Facilitators participated in 'Train-the-Trainer'-style workshops, acquiring the ability to set up, deliver and assess the outcomes of their own CORE workshops. Each Country Facilitator was empowered to autonomously drive awareness, recruitment and delivery of their own workshops.

Format

Designing a programme for diverse HF MDT members across several countries needed to balance the following challenges:

- be global in its reach yet acknowledge national regulations
- address the major needs observed in the needs assessment yet be readily adaptable to suit individual learning requirements
- appeal to HF specialists yet remain inclusive of the entire MDT
- foster relationships among the disparate members of the MDT

The results of our global needs assessment, literature review and feedback provided by the Steering Committee informed the learning objectives and topics covered in the curriculum. The global curriculum comprised six educational modules in a comprehensive programme:

1. Introduction to HF
2. Diagnosing HF
3. Planning and initiating treatment
4. Monitoring and adapting treatment
5. Long-term management of HF
6. Working together in HF management

The modules were designed to be used in combination with a training manual containing exercises that reinforced the key learning objectives of the modules. Exercises included teamwork challenges, project work, role play, lateral-thinking exercises and gameplay.

ADULT TEACHING METHODOLOGIES: CORE Workshops met Knowles' 4 principles of adult learning:

1. **Learners were included in the planning and evaluation of their education**
2. **Learning was based around problems (eg, during the interactive exercises)**

- 3. Learners were given the opportunity to learn through experience and practice (again, through the case-based interactive exercises)**
- 4. The education was always designed to have an immediate application within participants' professional roles**

The educational materials were strictly evidence-based; however, in some areas, there was limited peer-reviewed research published and no guidelines exist. Here, recommendations were based on the experience and recommendations of the Steering Committee. Once the global educational curriculum was approved, it was sent to national experts in each of the countries to review and adapt, ensuring that content reflected their national guidelines and was applicable to practice in their country. The finalised content was then delivered at a regional level by the 120 Country Facilitators.

The curriculum served as a toolkit to empower the Educators to deliver the highest standards of practice-changing education, through clinically focused, expert-directed education at a local level. The modules were designed to empower real change in clinical practice through flexible, interactive materials and suitable for all the members of the MDT (content could be tailored for a room of singular professions or for various MDT members). The modules provided a completely individualised approach to education as, prior to each meeting, learners completed assessments to allow for identification of individual educational gaps and subsequent individualisation of the content accordingly.

Ahead of each CORE workshop, the Country Facilitator would assess the educational needs of the 6–10 participants (a number recommended to keep the workshops intimate, engaging, interactive and conducive to sharing experiences). They would then select specific slides and exercises from their available local curriculum to deliver a personalised workshop for that specific group.

The success of CORE as an adaptable educational programme highlights the importance of having a strong educational design that is informed by the overall needs of HCPs but also allows for a national and personal approach to target specific gaps in clinical knowledge to improve patient care.

2. Outcomes Measurement

PCM Scientific sought to assess the educational effectiveness of the CORE programme on both a global and a national level across each of the six CORE countries.

The goal of outcomes measurement was to assess the effectiveness of the education in supporting improvements in the knowledge, competence, behaviour and attitudes of participants broadly categorised into the four main goals (outlined above). We also assessed the effectiveness of the education in terms of various learning objectives that were sub-categorised within those four goals.

PCM Scientific implemented a 'Commitment-to-Change' approach that gave participants additional flexibility to define their own personal performance improvement goals, within the confines of the pre-defined learning objectives. Following each CORE workshop, participants pledged to make 1 or 2 improvements to their clinical practice.

Outcomes measurement was facilitated by collating participant responses to surveys distributed at the following points:

- **Pre-assessment:** sent to learners before meetings to measure baseline knowledge, competence and practice
- **Evaluation:** sent to learners for completion immediately after the workshop for qualitative analysis of the quality, value and usefulness of the meeting

- **1-month post-assessment:** sent to learners 1 month after the workshops to measure initial changes in knowledge, competence and practice as a result of the meeting
- **3-month post-assessment:** sent to learners for completion 3 months after the workshop to measure sustained changes in knowledge, competence and practice as a result of the meeting

Outcomes analysis: change in knowledge, competence, behaviour or attitudes was determined by measuring net growth, whereby: Net growth = (Current value / Initial value) – 1

3. Impact Rationale

Participation

Core exceeded its original target number of participants: 1,945 cardiologists, GPs, specialist HF nurses and the wider MDT were educated through 286 live CME-accredited workshops in Austria, Australia, Canada, Spain, Sweden and the UK. Breakdown by country:

- Austria: 97 workshops for 581 participants
- Australia: 44 workshops for 272 participants
- Canada: 40 workshops for 235 participants
- Spain: 56 workshops for 432 participants
- Sweden: 11 workshops for 17 participants
- UK: 38 workshops for 408 participants

SUSTAINABILITY: Interestingly, CORE lives on even after completion: in some countries (eg, Spain and Austria), Country Facilitators are continuing to use the localised CORE curriculum to deliver workshops – unfunded!

CORE engaged with the original target audience of cardiologists, GPs and specialist HF nurses, but it was accessed by "Other" members of the wider interprofessional team, such as Pharmacists, Trainees/Students, Internists, Dieticians, Physiotherapists, Psychologists, Echocardiographers, Paramedic, etc.

Country	Specialist HF nurses	GPs	Physicians/ Cardiologists	Other
Austria	287	38	125	131
Australia	84	42	79	67
Canada	101	57	37	40
Spain	44	58	292	38
Sweden	9	-	-	8
UK	181	50	45	132
TOTAL	706	245	578	416

Impact on patient interaction and quality of care

CORE will have a significant impact on clinical practice and patient health outcomes.

According to the results of the post-education evaluations

- 76% of participants said the CORE programme education will definitely or most likely influence their approach to patient care in HF management
- 85% of respondents indicated that knowledge and skills learned from CORE will help them improve outcomes for their patients
- CORE participants see on average 8 patients with HF every week

EDUCATIONAL IMPACT: We are able to estimate therefore that CORE will have an impact on >11,000 patient interactions per week.

Change in knowledge, competence, behaviour and attitudes across the 4 CORE goals
Follow-up assessment of participants at 1 and 3 months revealed that CORE is transforming clinical practice across all of the key goals:

Global outcomes

1. GOAL 1: Increasing prompt diagnosis of HF

- 4-fold increase in HCPs recognising that HF treatment needs to be improved worldwide
- 22–57% improvement in HCPs' ability to correctly associate symptoms and signs typical of HF-REF, HF-PEF and HF-MREF
- 95% increase in HCPs indicating they never initiate treatment with non-pharmacological interventions prior to using pharmacological interventions
- 36% increase in HCPs who express importance of and refer patients to physical examination as part of HF diagnosis

2. GOAL 2: Improving the use of appropriate nonpharmacological and pharmacological interventions in HF

- 57% more HCPs are always educating the patient and family members about the overall HF treatment plan
- 65% increase in proportion of HCPs correctly choosing ARNI as the correct medication based on a specified set of patient criteria
- 31% increase in proportion of HCPs correctly choosing ARNI, sacubitril/valsartan 97/103 BID as the correct target dose in appropriate patients
- 80% increase in proportion of HCPs correctly referring patients to specialists for given profiles (eg, elevated N-terminal pro-BNP)
- 63.5% increase in proportion of HCPs correctly indicating that heart rate, rhythm and blood pressure should be monitored for loop diuretic or mineralocorticoid receptor antagonist (MRA)

3. GOAL 3: Improving disease management by addressing co-existing cardiologic and non-cardiologic disease states

- 8-fold growth globally and among individual countries of HCPs who say they are more confident in differentiating the symptoms and signs of conditions that are frequently confused with HF
- 50% more HCPs are now adapting treatments, and using the appropriate alternatives, based on patient needs

4. GOAL 4: Increasing MDT collaboration and communication

- 8-fold growth within countries of HCPs ensuring that all eligible patients receive a comprehensive treatment plan
- 51–195% increase in proportion of HCPs collaborating with HCPs from different care settings at key points in the patient pathway
 - discussing a care plan
 - discussing a patient's worsening symptoms
 - discussing alternative treatments of management strategies
 - discussing patient follow-up
 - discussing medication up-titration or monitoring

PATIENT ENGAGEMENT: The global outcomes presented above demonstrate the impact that the CORE programme had on engagement of the patient in the shared decision-making process.

National-level outcomes (selected results only)

1. Austria

- **4-fold increase** in the proportion of HCPs who correctly differentiate a patient at risk of having HF, based on a set of criteria provided
- **2–8-fold** in proportion of HCPs who consider physical examination, ECG

- ECG and echocardiography important to diagnose HF
- **8-fold growth** in the share of HCPs able to decipher ARNI, sacubitril/valsartan 97/103 BID as the correct target dose
- **144–253% increase** in the proportion of HCPs regularly reviewing serum urea and natriuretic peptides when regularly monitoring patients
- **3-fold growth** in proportion of HCPs routinely working with a GP to create a care plan
- **109% increase** in the proportion of HCPs who agree with patients having ongoing consultation with a nutritionist
- **6–7-fold growth** in the percentage of HCPs who ‘usually offer education/advice’ while discussing a care plan or a patient’s worsening symptoms

2. Australia

- 3-fold growth in the proportion of HCPs interacting with physiotherapists/occupational therapists during investigative assessments
- 178% growth in the proportion of HCPs interacting with geriatricians during initial contact; +3-fold growth during investigative assessments
- 4-fold growth in the proportion of HCPs interacting with PCPs during investigative assessments
- 8-fold growth in the share of HCPs able to decipher ARNI, sacubitril/valsartan 97/103 BID as the correct target dose

3. Canada

- +120% increase in proportion of HCPs able to accurately indicate whether a patient is at risk of having HF, based on a set of criteria provided
- +167% growth in the share of HCPs able to decipher ‘ACEi, enalapril, 20 mg BID’ as neither a correct starting nor target dose
- 4–7-fold growth in HCPs ‘very confident’ differentiating the symptoms and signs of anaemia, thyroid disease or gout
- 8-fold growth in no. of HCPs ‘routinely’ creating a comprehensive care plan spanning primary and secondary care

4. Spain

- +10-fold growth in the share of HCPs interacting with pharmacists during clinical diagnosis
- +167% growth in the share of HCPs able to decipher ‘ACEi, enalapril, 20 mg BID’ as neither a correct starting nor target dose
- 4–7-fold growth in HCPs ‘very confident’ differentiating the symptoms and signs of anaemia, thyroid disease or gout
- 8-fold growth in no. of HCPs ‘routinely’ creating a comprehensive care plan spanning primary and secondary care
- +147% growth in the percentage of HCPs interacting with geriatricians during treatment; +103% during monitoring; and +114% during palliative care

5. UK

- 148% growth in proportion of HCPs who correctly differentiate that a patient is at risk of HF
- 11-fold increase in HCPs who agree that BNP/NT fold increase in HCPs who agree that BNP/NT fold
- 6-fold increase in share of HCPs interacting with PCPs during clinical diagnosis
- 87.5% increase in the share of HCPs who agree with continuing to have patients managed by specialised HF nurse
- 5-fold growth in the proportions of who believe lack of time required to contact or communicate with other HCPs is not a barrier to providing HF care