# Developing a complete CAR T cell cardio-oncology programme – how the BCS ELP showed the way

Unpredictable external crises affecting clinical

and research components e.g. COVID-19

Arjun K Ghosh<sup>1,2,3</sup>, Daniel H Chen<sup>1,2,3</sup>, Alison Macklin<sup>2,3</sup>, Maeve A O'Reilly<sup>4</sup>, Claire Roddie<sup>4</sup>, J Malcolm Walker<sup>2,3</sup>

Limits of current workforce to deliver

clinical/research service

**Figures** 

1 Cardio-Oncology Service, Barts Heart Centre, St Bartholomew's Hospital, 2 Cardio-Oncology Service, University College London Hospital, 3 Hatter Cardiovascular Institute, UCL, 4 Haematology Service, UCLH

### Introduction/Objectives

Chimeric antigen receptor T cell therapy (CARTC) is a revolutionary therapy for haematological cancers. Associated cardiotoxicities are however ill-defined [1].

Building on ELP-delivered concepts of individual and systems-based changes to optimise patient safety [2], we aimed to establish clinical and research CARTC cardio-oncology programmes.

# Materials/Methods

The "heart + head = hands" model [3] was used to determine the most appropriate overarching strategic approach. A teams-based leadership style [4] was utilized with individuals assigned tasks appropriate to skill-set.

A Johari window [5] was constructed (Figure 1) to determine relationships between relevant parties and a policy development plot [6] was designed (Figure 2).

ELP concepts of "exerting power and influence" [7], [8] and "having difficult conversations" [9] were utilized in subsequent meetings with relevant stakeholders.



# Known to self, known to others Desire to improve CARTC outcomes from cardiac perspective Pre-existing political relationships within CARTC clinicians, broader haemato-oncology department and haematology managers Known to self, unknown to others Unknown to self, unknown to others

Figure 1. Johari window depicting relationship between self (cardio-oncology team) and others (CARTC clinicians, haemato-oncology clinicians and managers)

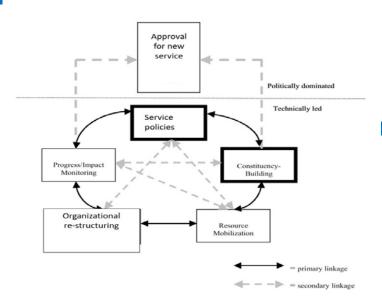


Figure 2. Policy development plot demonstrating interplay between political and technical considerations in formation of new CARTC services. (Adapted from K Schmeer. Stakeholder Analysis Guidelines. World Health Organization 1999)

## Results

Despite COVID-19 related challenges both goals were met.

A new clinic and consult service was established with constructive discussions on job-planning and funding.

A research programme was initiated after successfully obtaining funding and ethical/regulatory approvals.

### Conclusions

Utilizing a number of leadership and managerial concepts explored on the ELP (compassionate leadership, teams-based approach, critical problem appraisal, difficult conversations, NHS funding sources), we successfully established clinical and research CARTC programmes.

### References

[1] A. K. Ghosh, D. H. Chen, A. Guha, S. Mackenzie, J. M. Walker, and C. Roddie, "CAR T Cell Therapy—Related Cardiovascular Outcomes and Management," JACC CardioOncology, vol. 2, no. 1, pp. 97–109, Mar. 2020.

[2] J. K. Johnson, S. H. Miller, and S. D. Horowitz, Systems-Based Practice: Improving the Safety and Quality of Patient Care by Recognizing and Improving the Systems in Which We Work. Agency for Healthcare Research and Quality (US), 2008.

# References (contd.)

[ [3] J. Singleton, "Head, heart and hands model for transformative learning," The Journal of Sustainability Education, 2015. [Online]. Available: http://www.susted.com/wordpress/content/head-heart-and-hands-model-for-transformative-learning-place-as-context-for-changing-sustainability-values\_2015\_03/. [Accessed: 07-Feb-2021].

[4] J. H. Armstrong, "Leadership and team-based care," Virtual Mentor, vol. 15, no. 6, pp. 534–537, 2013.

[5] "Luft J and Ingham H The Johari Window A Graphic Model of Interpersonal | Course Hero." [Online]. Available: https://www.coursehero.com/file/p6qbv9f/Luft-Johari Window A Craphic

and-Ingham-H-The-Johari-Window-A-Graphic-Model-of-Interpersonal/. [Accessed: 08-Feb-2021].

[6] S. A. Silver et al., "How to begin a quality improvement project," Clin. J. Am. Soc. Nephrol., vol. 11, no. 5, pp. 893–900, 2016.

[7] A. Saxena et al., "Power and physician leadership," BMJ Lead., vol. 3, no. 3, pp. 92–98, Sep. 2019.

[8] S. Gabel, "Power, leadership and transformation: the doctor's potential for influence," Med. Educ., vol. 46, no. 12, pp. 1152–1160, Dec. 2012.

[9] D. M. Browning, E. C. Meyer, R. D. Truog, and M. Z. Solomon, "Difficult Conversations in Health Care: Cultivating Relational Learning to Address the Hidden Curriculum," Acad. Med., vol. 82, no. 9, pp. 905–913, Sep. 2007.