CIREL

CIRSE Registry for LifePearl Microspheres

Study objectives

Primary endpoint

The primary objective is to observe the real-life clinical application of LifePearl® Microspheres loaded with irinotecan and the impact of the treatment in clinical practice. This will be categorized as one of the following 6 categories with sub-categories:

1. First line treatment
2. Consolidation treatment/closing treatment with or without systemic therapy
3. Intensification treatment with concomitant systemic therapy
4. Salvage treatment in progressive patients pre-treated with systemic therapy with or without concomitant systemic therapy
5. Combination treatment with ablation with curative intent
6. Other

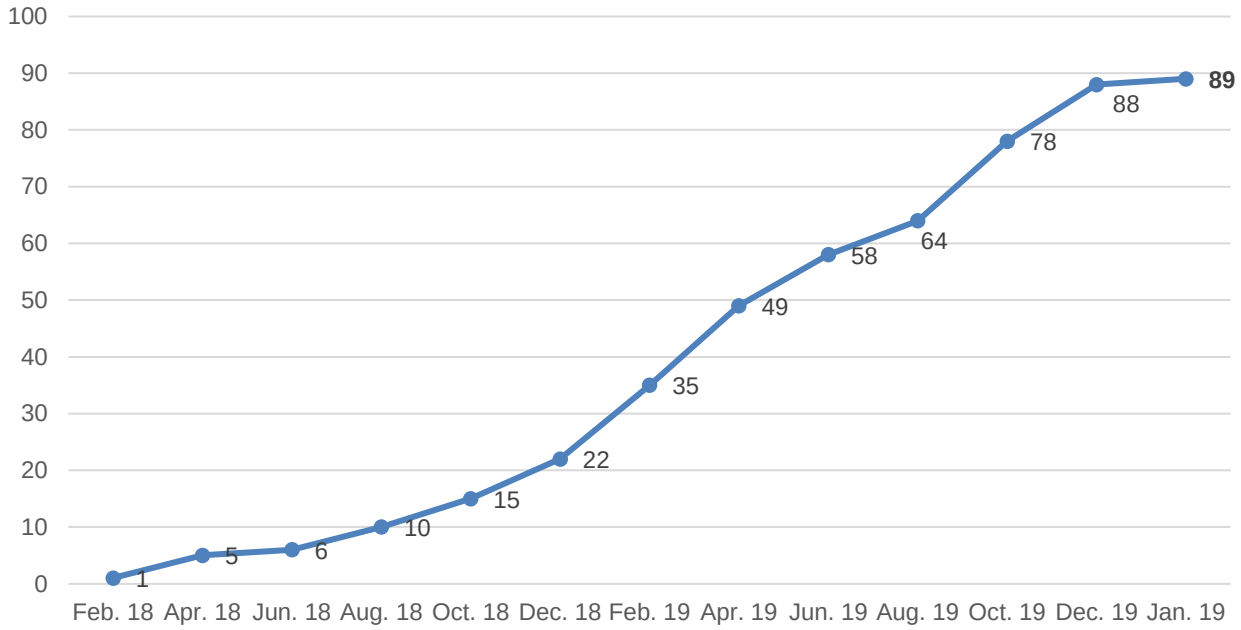
Study objectives

Secondary endpoint

Effectiveness	Overall survival Progression-free survival Hepatic progression-free survival Objective response rate Early tumour shrinkage Deepness of response Secondary resection or ablation
Safety	Treatment complications Adverse events
Quality of life	QLQ-C30 with HCC Module (if HCC)

CIREL CIRSE Registry for LifePearl Microspheres

Recruitment figures: February 2018 - January 2019

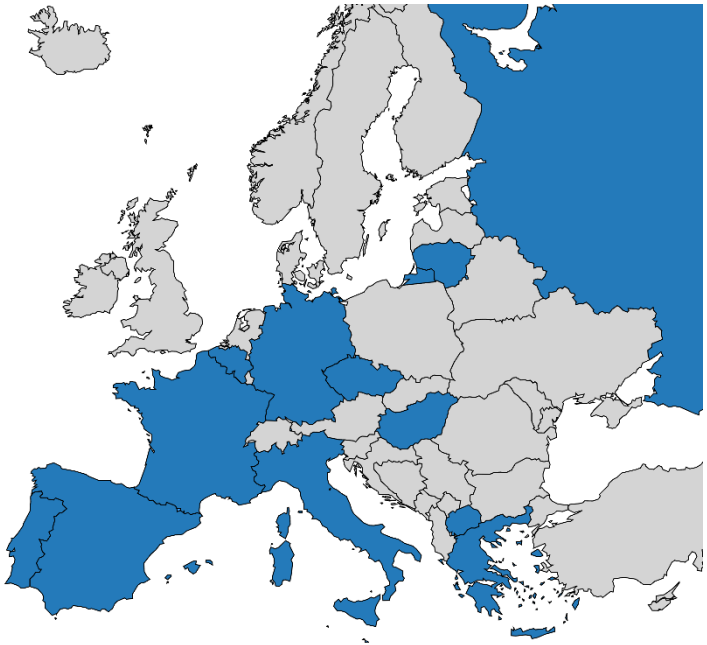


CIREL CIRSE Registry for LifePearl Microspheres

Patient distribution per country

- 12 countries
- 22 sites
- 89 patients

Country	Hospitals	Patients
Belgium	1	1
Czechia (new)	1	0
France	1	2
Germany (1 new)	3	17
Greece	1	8
Hungary	1	17
Italy	5	22
Lithuania (new)	1	0
Northern Macedonia	1	13
Russia	1	2
Spain (1 new)	4	1
Portugal	2	6



How did we get there

Status quo in 2013-2016

- Initial discussions with Terumo regarding a registry with DC Bead® (distributed by Terumo in the EU[1])
- 2015: Terumo enters chemoembolisation market: LifePearl ® Microspheres (with irinotecan or doxorubicin)
- Medical community perceived lack of data on chemoembolisation in mCRC

- 2016: Study contract with Terumo
  - Terumo provided independent license for electronic data capturing system (EDC) OpenClinica
  - Technical support from Terumo: CIRSE could adopt and adapt this system to its own needs

Lessons learned from CIRT

- Data collection
  - Full control of the electronic data capturing system
  - Quality of life questionnaires: ePRO system for collecting directly from patients

- Study design
  - Define your objectives carefully and attune your data points
  - Define statistical analyses
  - Define methods of data monitoring and quality control
  - Site qualification questionnaire: understanding the sites' experience and capacity

CIREL: summary

Strengths	Points for development	Solutions
• Largest data set on treatment modality • 150+ data points per patient and high data completion • Multidisciplinary Steering Committee • Dual, multidisciplinary chairpersonship	• Low referrals for treatment from multidisciplinary tumour boards	

Lessons learned

- Data collection
  - Full maintenance and programming of the electronic data capturing system
  - Working with a core lab for central image review

- Study design and execution
  - Independent information regarding sites' patient volume required: Letter of intent
  - Technology & usability of electronic patient reported outcome tools for collecting quality of life questionnaires directly from patients

- Governance
  - Dual, multidisciplinary chairpersonship