longer than TTR for non-oncological NAS. TTR progressively decreased for oncological NAS between 2014 (632 days) and 2017 (371), with a slight change in trend for drugs with no NAP. Among oncological orphan drugs (ODs), only 3 didn’t achieve reimbursement and, out of that, 2 are undergoing a negotiation. Median TTR for ODs was 2 months shorter than TTR for non-ODs (471 vs 528 days). 20/43 reimbursed drugs were assessed by AFN as “innovative”, showing a median TTR (372 days) significantly shorter than “non-innovative drugs” (508 days). All oncological NAS were reimbursed with specific negotiating conditions: the majority (84%) with a hidden discount, 17/43 (40%) with a Managed Entry Agreement (MEA), one with a cap. TTR was similar for drugs reimbursed with and without a MEA (302 vs. 494 days). Applications: Even if with a longer TTR than non-oncological NAS, the majority of oncological NAS – and almost all oncological ODs – obtain the reimbursement in Italy. The innovation status is the main driver of TTR reduction.

PCN209
THE ACQUISITION COST AND EFFICIENCY OF CAR T CELL THERAPIES: CAN THEY BE IMPROVED BY DECENTRALIZED MANUFACTURING?
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Objectives: Chimeric Antigen Receptor (CAR) T cell therapies represent a novel promising approach for cancer immunotherapy. Their use has been licensed for the treatment of rare late stage blood cancers. The pricing of commercially available products at approximately 300,000 euros per patient treated (in Germany, 2020) has raised concerns about affordability and sustainability. Further, the centralized production of CAR T cells in long-distance transport is expensive. We analyzed the cost of decentralized T cell production in the non-profit setting of an academic cancer research center (DKFZ) in Germany. Methods: We identified work steps and main activities in the local production process, and determined the associated fixed costs and variable costs (in 2018 Euros). We used scenario analyses to estimate (1) the impact of production upscaling and (2) the impact of likely technological improvements.

Results: Main cost components were personnel and technician salaries, expenditure on equipment, a clean room facility, and production materials. For the clean room facility with one automated cell manufacturing platform, annual fixed costs were €438,098. The variable cost per production was estimated at €34,798. At maximum capacity of one machine, total cost per product was close to €60,000. (1) If three machines were installed in one clean room facility, per production total cost could as be low as €45,000. (2) If plasmid-based vectors were used as a substitute for currently applied lentiviral vectors, per production total cost could be further reduced to €33,000. Conclusions: Abstracting from potential issues related to intellectual property rights, decentralized T cell production might be a more efficient alternative to the commercially available centralized production mode. We anticipate production costs to further decrease in the future with increased standardization of processes, economies of scale and scope, and learning curve effects. This expectation is commensurate with the early life cycle stage of this new technology.

PCN210
ESTIMATING THE IMPACT OF DELAYED ACCESS TO ONCOLOGY DRUGS ON PATIENT OUTCOMES IN CANADA
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Introduction: The Canadian reimbursement process for therapies is lengthy and each step can cause delay. With the introduction of new requirements in PMPRB there may be additional delays and so it is important to understand how reimbursement review times ultimately impact patient outcomes. Objectives: To compare the number, duration, and outcome of reimbursement reviews for lung cancer drugs in Canada versus other comparable countries; and to estimate the effect on patients, of delays in access to the lung cancer therapies nivolumab, atalizumab and pembrolizumab (NAP). Methods: Submissions for lung cancer drugs to CADTH/pCODR, NICE, HAS, and SMC were reviewed, and the number, duration and outcome of reviews were recorded and assessed for time trends. To define delays, the duration of reviews for NAP by CADTH/pCODR and Canadian provinces were assessed using internal benchmarks. The Southern Alberta Lung Cancer database was used to estimate the number of lung cancer patients that could be affected by delayed access to NAP. Data from phase III clinical trials and the literature were used to estimate the economic costs of potential years of life lost (PYLL) and quality-adjusted life years (QALYs) attributable to a one-day delay in access to NAP. Results: 101 applications for new lung cancer drugs were made to CADTH/pCODR, NICE, SMC, and HAS between 2012 and 2019. Median rejection rates/days of review were 286(213), 63(329), 175(156), 79(65), and 76(70) days for CADTH/pCODR, NICE, SMC, and HAS, respectively. The delay in reviews ranged from 17-182 days and 0-797 days at CADTH/pCODR, and Canadian provinces respectively. Delay in access to NAP by one day could affect 6350 Canadian patients and may lead to 1681 PYLL and 1082 QALYs lost (valued at $108.2million CAD). Conclusions: Avoidable delays exist in the Canadian reimbursement process, and these could have significant impacts on the lives of lung cancer patients.

PCN211
DIRECT COSTS RELATED TO MEDICAL MANAGEMENT OF MALIGNANT CUTANEOUS MELANOMA THROUGH THE PATIENT PATHWAY
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Objectives: To synthesize published evidence on the direct costs of cutaneous melanoma in European countries and to explore the costs during the disease course by cost type and phase of treatment. Methods: A full literature review on studies reporting original estimates of direct medical and non-medical cost of melanoma in Europe was conducted. Four databases were searched systematically: the Cochrane Database of Systematic Reviews, MEDLINE (via PubMed), Web of Science, and the CRD databases. Additional searches were conducted in EconPapers and Google Scholar. Results: For melanoma stage I, the majority of studies included in this review, decision making for next step of treatment was reported. Conclusions: The cancer stage at diagnosis and treatment is the main driver of TTR reduction.

PCN212
ONCOLOGY DISEASES PRIORITISATION LIST FOR INFORMING NATIONAL CANCER SETTING AND DEVELOPMENT OF NATIONAL CANCER CONTROL PLAN IN UKRAINE
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Objective: To develop a priority setting list of oncology diseases for planning national cancer control strategies. Methods: One hundred eight studies were reviewed in full text, 38 were eligible for data extraction. The most significant components of direct medical cost were inpatient and outpatient care with an annual cost of hospitalization per patient between €607 in Sweden and €6,244 in Denmark (2018 Euros). Advanced stages showed substantially higher costs. The total cost of an inpatient episode was €1,722 in the general melanoma population in France and €28,428 in unresectable stage III/IV in Italy. Total per patient costs associated with diagnostics and imaging, surgical therapy, or radiotherapy were all below 2,000 Euros. Total per patient cost of active systemic therapy for advanced stages range between €14,482 in France and €75,552 in the Netherlands. Total cost of follow-up in Germany was €1,604 and €11,993 per patient in early and advanced stages, respectively. The highest annual out-of-pocket payment was €1,086 in the UK. Conclusions: Melanoma impose a significant economic burden on the healthcare systems in Europe. Melanoma related costs vary substantially by phase of management, treatment, and stage at diagnosis. Results of this review are suitable to support modeling the potential savings in melanoma related costs by primary prevention and early diagnosis.

PCN213
HEALTH IMPACT OF OPTIMIZING THE TIME TO PATIENT ACCESS
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Abstracting from potential issues related to in-hospital stay, the majority of oncological NAS – and almost all oncological ODs – obtain the reimbursement in Italy. The innovation status is the main driver of TTR reduction.