Viral Load Guided Immunosuppression After Lung Transplantation (VIGILung)

ClinicalTrials.gov Identifier: NCT04198506

Recruitment Status : Recruiting
First Posted : December 13, 2019
Last Update Posted : September 17, 2020

See Contacts and Locations

Sponsor:
Philipps University Marburg Medical Center

Information provided by (Responsible Party):
Philipps University Marburg Medical Center

Study Details | Tabular View | No Results Posted | Disclaimer | How to Read a Study Record

Tracking Information	
First Submitted Date ICMJE	December 5, 2019
First Posted Date ICMJE	December 13, 2019
Last Update Posted Date	September 17, 2020
Actual Study Start Date ICMJE	August 5, 2020
Estimated Primary Completion Date	December 1, 2025 (Final data collection date for primary outcome measure)
Current Primary Outcome Measures ICMJE **(submitted: December 12, 2019)**	ΔGFR change of the glomerular filtration rate GFR [Time Frame: Between randomization and 12 months thereafter] The primary efficacy endpoint ΔGFR is defined as the change of the glomerular filtration rate GFR between randomization and 12 months thereafter. GFR will be estimated using the CKD-EPI formula.

Original Primary Outcome Measures ICMJE	*Same as current*
Change History	Complete list of historical versions of study NCT04198506 on ClinicalTrials.gov Archive Site
Current Secondary Outcome Measures ICMJE **(submitted: January 27, 2020)**	• GFR (CKD-EPI) [Time Frame: 1 and 2 months after transplantation (screening visits) and 0, 3, 6, 9 and 12 months after randomization] Glomerular filtration rate (the Chronic Kidney Disease Epidemiology Collaboration - CKD-EPI) formula • GFR (Cystatin) [Time Frame: Screening visits and 0, 3, 6, 9 and 12 months after randomization] Glomerular filtration rate (Cystatin) • Number of biopsy-proven acute cellular rejection (grade A1 or higher) [Time Frame: 12 months after randomization] • Number of episodes of biopsy-proven lymphocytic bronchitis (grade B1R or higher) [Time Frame: 12 months after randomization] • Number of cytomegalovirus (CMV)-infections and CMV-disease episodes [Time Frame: 12 months after randomization] • Number of community-acquired respiratory viral infections (CARV) [Time Frame: 12 months after randomization] • Number of fungal and bacterial infections [Time Frame: 12 months after randomization] • Number of unscheduled or emergency hospitalizations [Time Frame: 12 months after randomization] • Number of ICU admissions [Time Frame: 12 months after randomization] • Quality of life questionnaire [Time Frame: Screening visits and 0, 3, 6, 9 and 12 months after randomization] European Quality of Life 5 Dimensions - EQ-5D • New or progressive malignancy [Time Frame: 12 months after randomization] • Median tacrolimus trough levels [Time Frame: Screening visits and 0, 3, 6, 9 and 12 months after randomization] • Tacrolimus dose [Time Frame: Screening visits and 0, 3, 6, 9 and 12 months after randomization] • Number of changes (increase or decrease) in target trough levels of tacrolimus [Time Frame: Screening visits and 0, 3, 6, 9 and 12 months after randomization] • Exercise capacity (6-Min Walk Test - 6MWT) [Time Frame: At randomization and 12 months thereafter] • CD4-Lymphocytes counts [Time Frame: 0, 6 and 12 months after randomization] • Donor specific antibodies [Time Frame: 0, 6 and 12 months after randomization] • FEV1 in % best value [Time Frame: Screening visits and 0, 3, 6, 9 and 12 months after randomization] • Incidence of chronic lung allograft dysfunction [Time Frame: Between randomization and 12 months thereafter] • IgG-level [Time Frame: 0, 6 and 12 months after randomization] • Use of rescue immunotherapy (defined by the use of ATG, Rituximab, Alemtuzumab, plasma exchange, immunoadsorption) [Time Frame: 12 months after

	randomization] • Death or re-do transplantation [Time Frame: 12 months after randomization]
Original Secondary Outcome Measures ICMJE **(submitted: December 12, 2019)**	• GFR (CKD-EPI) [Time Frame: 1 and 2 months after transplantation (screening visits) and 0, 3, 6, 9 and 12 months after randomization] Glomerular filtration rate (the Chronic Kidney Disease Epidemiology Collaboration - CKD-EPI) formula • GFR (Cystatin) [Time Frame: Screening visits and 0, 3, 6, 9 and 12 months after randomization] Glomerular filtration rate (Cystatin) • Number of biopsy-proven acute cellular rejection (grade A1 or higher) [Time Frame: 12 months after randomization] • Number of cytomegalovirus (CMV)-infections and CMV-disease episodes [Time Frame: 12 months after randomization] • Number of community-acquired respiratory viral infections (CARV) [Time Frame: 12 months after randomization] • Number of fungal and bacterial infections [Time Frame: 12 months after randomization] • Number of unscheduled or emergency hospitalizations [Time Frame: 12 months after randomization] • Number of ICU admissions [Time Frame: 12 months after randomization] • Quality of life [Time Frame: Screening visits and 0, 3, 6, 9 and 12 months after randomization] European Quality of Life 5 Dimensions - EQ-5D • New or progressive malignancy [Time Frame: 12 months after randomization] • Median tacrolimus trough levels [Time Frame: Screening visits and 0, 3, 6, 9 and 12 months after randomization] • Tacrolimus dose [Time Frame: Screening visits and 0, 3, 6, 9 and 12 months after randomization] • Number of changes (increase or decrease) in target trough levels of tacrolimus [Time Frame: Screening visits and 0, 3, 6, 9 and 12 months after randomization] • Exercise capacity (6-Min Walk Test - 6MWT) [Time Frame: At randomization and 12 months thereafter] • CD4-Lymphocytes counts [Time Frame: 0, 6 and 12 months after randomization] • Donor specific antibodies [Time Frame: 0, 6 and 12 months after randomization] • FEV1 in % best value [Time Frame: Screening visits and 0, 3, 6, 9 and 12 months after randomization] • Incidence of chronic lung allograft dysfunction [Time Frame: Between randomization and 12 months thereafter] • IgG-level [Time Frame: 0, 6 and 12 months after randomization] • Use of rescue immunotherapy (defined by the use of ATG, Rituximab, Alemtuzumab, plasma exchange, immunoadsorption) [Time Frame: 12 months after randomization] • Death or re-do transplantation [Time Frame: 12 months after randomization]

Current Other Pre-specified Outcome Measures	*Not Provided*
Original Other Pre-specified Outcome Measures	*Not Provided*

Descriptive Information

Brief Title ICMJE	Viral Load Guided Immunosuppression After Lung Transplantation
Official Title ICMJE	Viral Load Guided Immunosuppression After Lung Transplantation, an Open-label, Randomized, Controlled, Parallel-group, Multicenter Trial
Brief Summary	The VIGILung study is an open-label, randomized, multicenter trial in lung transplant recipients to investigate the safety and efficacy of personalized immunosuppression guided by DNA monitoring of Torque-Teno-Virus (TTV). The aim of the study is to investigate an individual adaptation of the calcineurin inhibitor tacrolimus (tailored calcineurin inhibitor dosing) by a non-invasive biomarker (TTV viral load in whole blood) compared to conventional calcineurin inhibitor dosing. Indicator for toxicity will be the glomerular filtration rate (GFR), which will be estimated using the CKD-EPI formula. 250 patients (age ≥ 18 years) with 21 to 42 days after de novo lung transplantation (bilateral or combined) will be screened as possible subjects eligible for the study. N = 144 patients have to be randomized in two study arms. In Arm 1 tacrolimus doses will be adapted according to the tacrolimus blood level (conventional therapeutic drug monitoring - TDM) and additionally depending on TTV viral load. In Arm 2 tacrolimus doses will be adapted according to TDM.
Detailed Description	*Not Provided*
Study Type ICMJE	Interventional
Study Phase ICMJE	Not Applicable
Study Design ICMJE	Allocation: Randomized Intervention Model: Parallel Assignment Masking: None (Open Label) Primary Purpose: Treatment
Condition ICMJE	Transplantation Lung
Intervention ICMJE	• Other: Tailored tacrolimus dosing Tacrolimus doses will be adapted according to tacrolimus blood level (conventional therapeutic drug monitoring -TDM) and additionally depending on TTV viral load. • Other: Conventional tacrolimus dosing Tacrolimus doses will be adapted according to tacrolimus blood level (conventional therapeutic drug monitoring - TDM).

Study Arms ICMJE	• Experimental: Tailored tacrolimus dosing Tacrolimus doses will be adapted according to tacrolimus blood level (conventional therapeutic drug monitoring - TDM) and additionally depending on TTV viral load. Intervention: Other: Tailored tacrolimus dosing • Active Comparator: Conventional tacrolimus dosing Tacrolimus doses will be adapted according to tacrolimus blood level (conventional therapeutic drug monitoring - TDM). Intervention: Other: Conventional tacrolimus dosing
Publications *	*Not Provided*

*** Includes publications given by the data provider as well as publications identified by ClinicalTrials.gov Identifier (NCT Number) in Medline.**

Recruitment Information

Recruitment Status ICMJE	Recruiting
Estimated Enrollment ICMJE **(submitted: December 12, 2019)**	144
Original Estimated Enrollment ICMJE	*Same as current*
Estimated Study Completion Date ICMJE	December 1, 2025
Estimated Primary Completion Date	December 1, 2025 (Final data collection date for primary outcome measure)
Eligibility Criteria ICMJE	Inclusion Criteria: 1. Patients 21 to 42 days after de novo lung transplantation (bilateral or combined) 2. Age ≥ 18 years 3. Tacrolimus based immunosuppression 4. Written informed consent 5. Detectable TTV load at randomization (>2,7 log 10) 6. Negative serum pregnancy test in women of childbearing potential 7. Women of childbearing capacity must agree to maintain highly effective methods of contraception by practicing abstinence or by using at least two methods of birth control from the date of consent through the end of the study. If abstinence is not practiced, a combination of hormonal contraceptive (oral, injectable or implants) and a barrier method (condom, diaphragm with a vaginal spermicidal agent) has to be used Exclusion Criteria: 1. History or high-risk of obstructive airway complications after lung transplantation 2. Respiratory failure (need for oxygen therapy or ventilation at screening after lung transplantation) 3. Inability to undergo transbronchial biopsy 4. Advanced kidney failure (GFR CKD-EPI <30 ml/min/1.73m²) at inclusion and/or current renal replacement therapy at inclusion or randomization

	5. Advanced liver cirrhosis (CHILD-Pugh Score C) after lung transplantation 6. Fluctuating tacrolimus drug levels (less than 20% in target range after transplantation) 7. Symptoms of significant mental illness and with inability to cooperate or communicate with the investigator 8. Unlikeliness to comply with the study requirements 9. HIV positivity 10. Evidence of unsolved drug or alcohol addiction 11. Breastfeeding women 12. Simultaneous participation in other clinical trials if not permitted by the steering committee
Sex/Gender ICMJE	Sexes Eligible for Study: All
Ages ICMJE	18 Years and older (Adult, Older Adult)
Accepts Healthy Volunteers ICMJE	No
Contacts ICMJE	Contact: Jens Gottlieb, Prof. MD +49 (0) 511-532-4601 gottlieb.jens@mh-hannover.de
Listed Location Countries ICMJE	Austria, Germany
Removed Location Countries	

Administrative Information

NCT Number ICMJE	NCT04198506
Other Study ID Numbers ICMJE	KKS-256 2019-001770-29 (EudraCT Number)
Has Data Monitoring Committee	Yes
U.S. FDA-regulated Product	Studies a U.S. FDA-regulated Drug Product: No Studies a U.S. FDA-regulated Device Product: No
IPD Sharing Statement ICMJE	*Not Provided*
Responsible Party	Philipps University Marburg Medical Center
Study Sponsor ICMJE	Philipps University Marburg Medical Center
Collaborators ICMJE	*Not Provided*
Investigators ICMJE	Principal Investigator: Jens Gottlieb, Prof. MD Klinik für Pneumologie OE 6870, Medizinische Hochschule Hannover (MHH)
PRS Account	Philipps University Marburg Medical Center
Verification Date	September 2020

ICMJE **Data element required by the International Committee of Medical Journal Editors and the World Health Organization ICTRP**