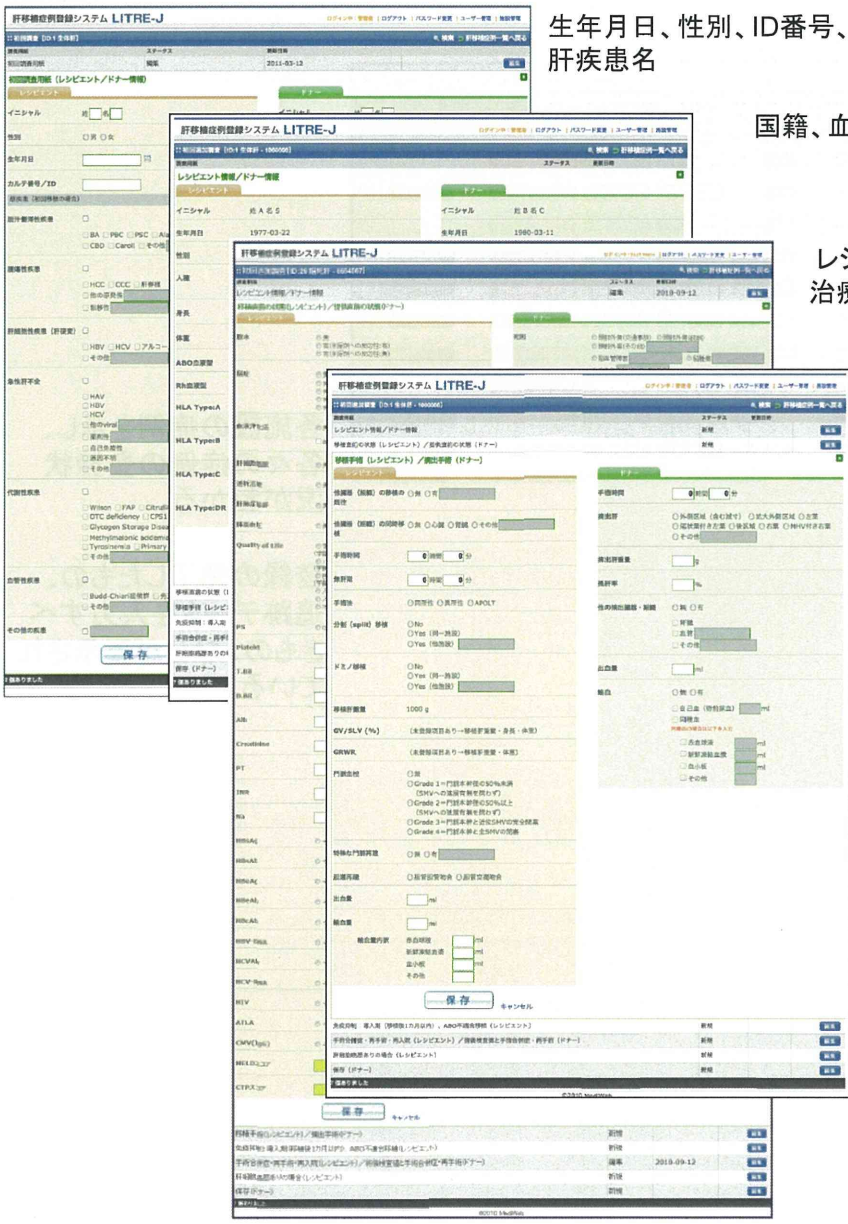
移植施設毎の症例一覧表

各施設の症例を示し、各々の症例の登録状況がわかる。

登録の完了したもの、追跡データを入力すべきもの、などが表示されている。

症例の詳細を入力する画面



生年月日、性別、ID番号、
肝疾患名

国籍、血液型、身長、体重、HLA型

レシピエントの状態、PS,
治療歴、検査データ、など

レシピエント、ドナーの手術

LITRE-Jのメリット

- ○ 何時でも、何処でも入力可能
- ○ 自動的にスコアー入力
- ○ 入力ミスの減少（入力チェック機能）

- ○ コンピュータの種類に依存しない
  → Windowsでも、Macでも可

- ○ 何時でも、システムのversion up が可能

厚生労働科学研究費補助金

平成20～22年度　一般公募型

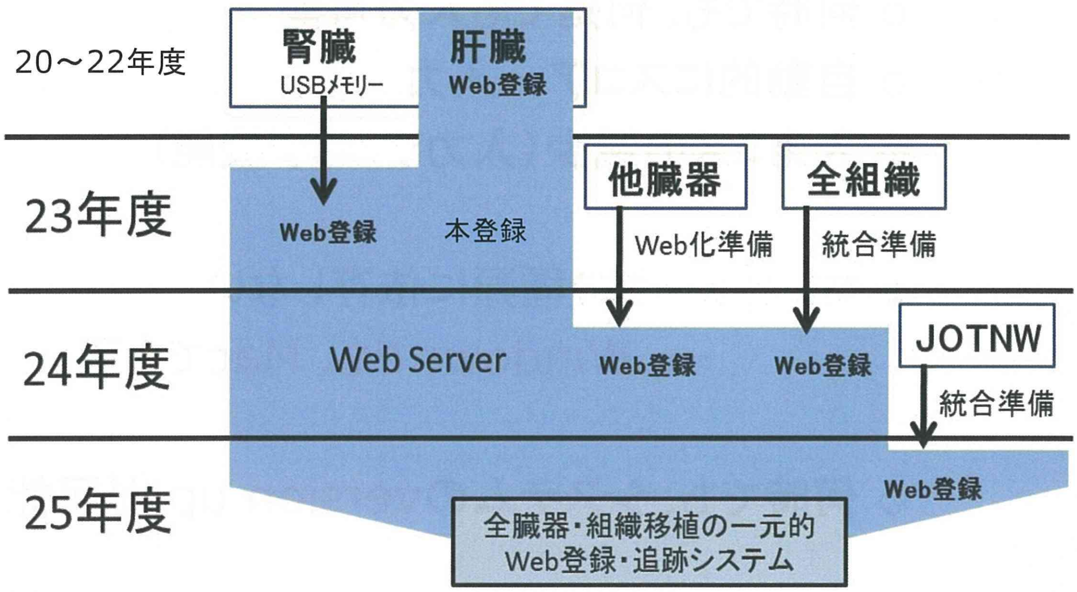
腎臓移植の成績向上をめざした臨床データ解析を目的とした症例登録と追跡制度の確立並びにドナー及びレシピエントの安全性確保とQOL向上に関する研究

平成23～25年度　指定型

全ての臓器と組織移植症例の一元的な登録と追跡制度の確立ならびにドナーとレシピエントの安全性確保とQOL向上に関する研究

JSCRT

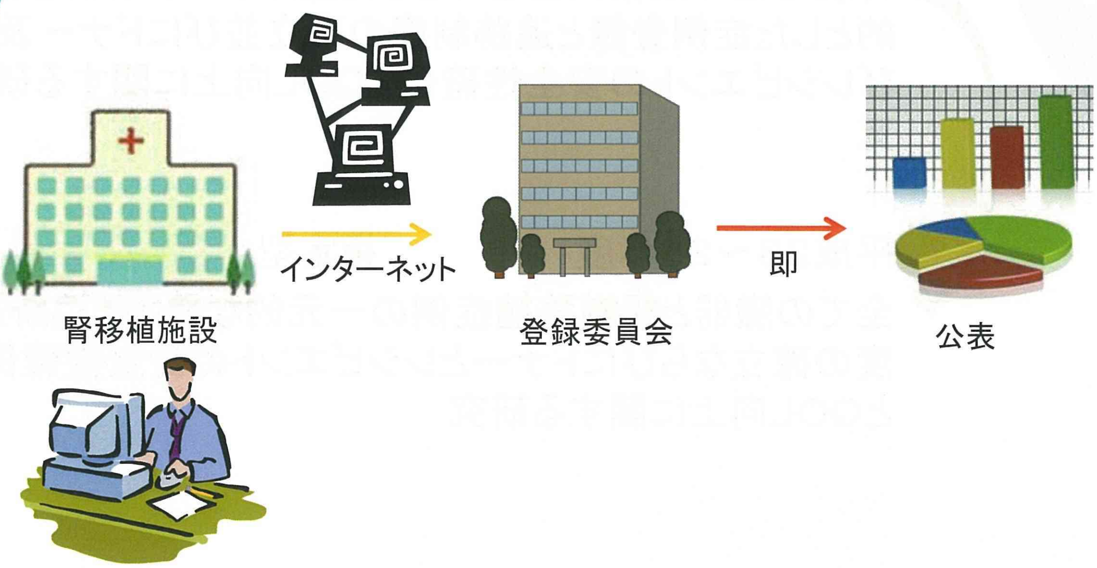
全ての臓器と組織移植症例の一元的な登録と追跡制度の確立ならびにドナーとレシピエントの安全性確保とQOL向上に関する研究



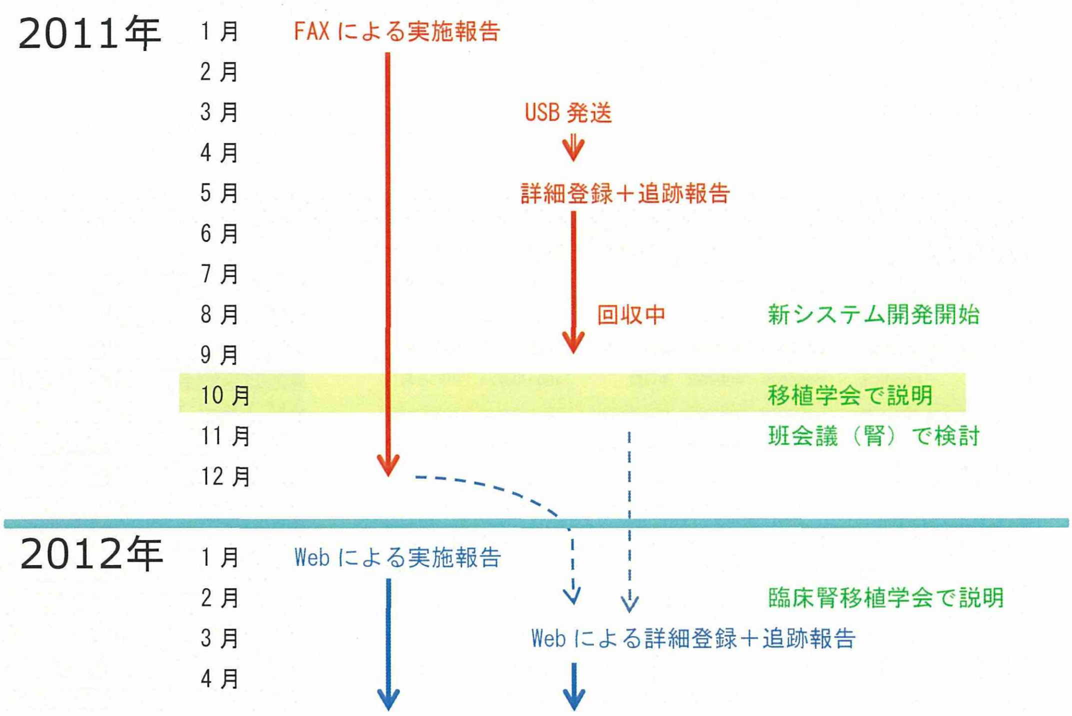
JSCRT

JARTRE-W system

- 2012年1月1日からの登録は完全にweb化



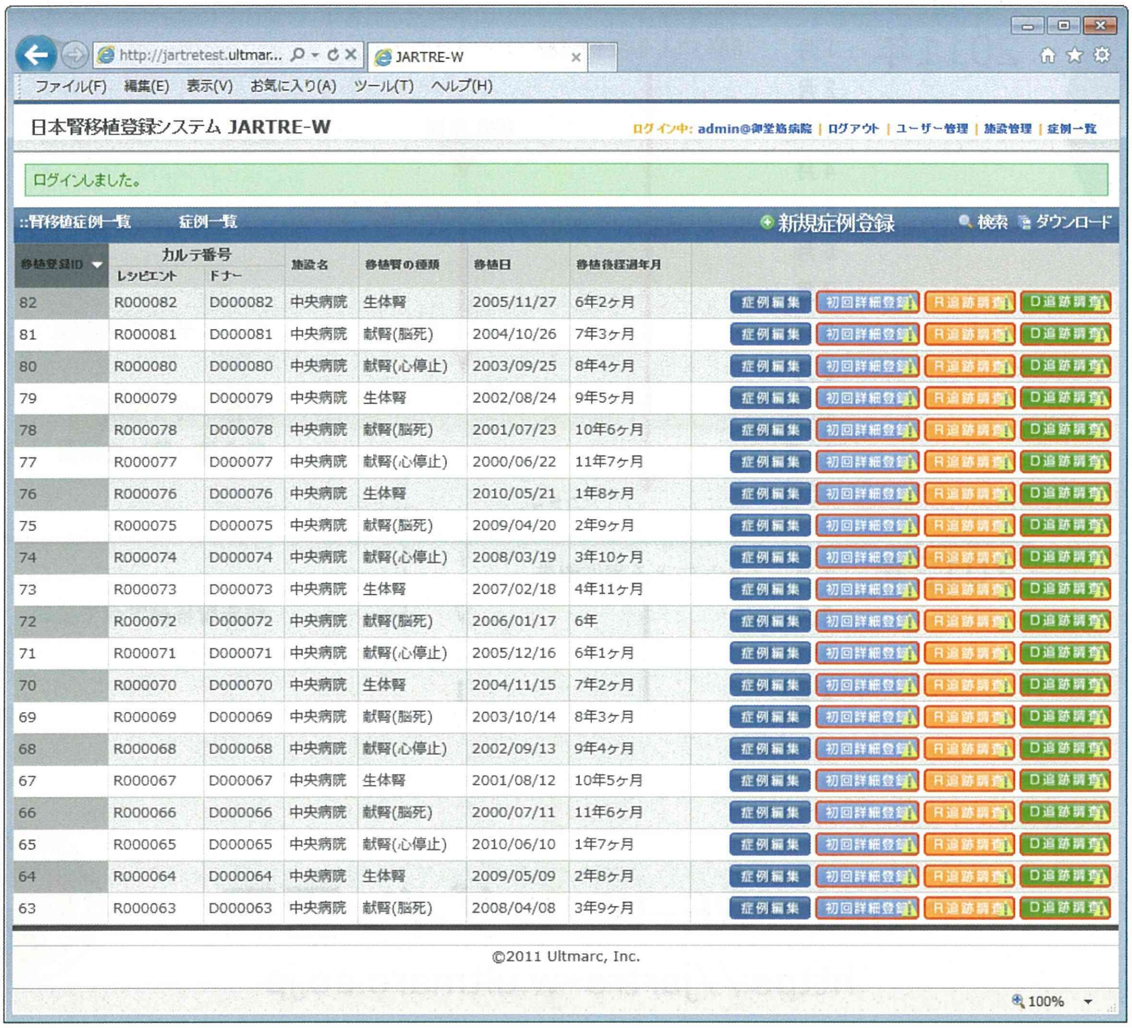
新システムまでのロードマップ



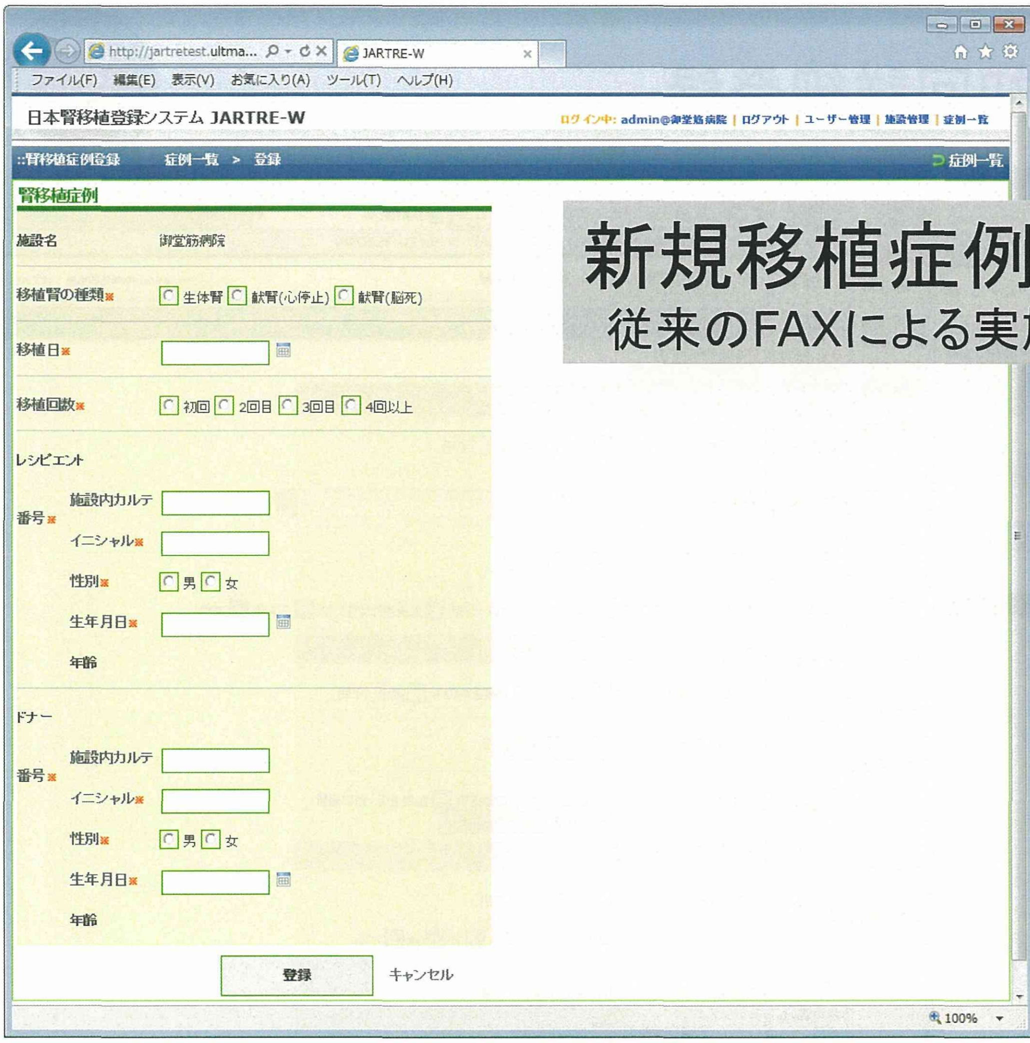
JARTRE-W ログイン画面

https://jartre-w.ultmarc.co.jp

症例一覧画面



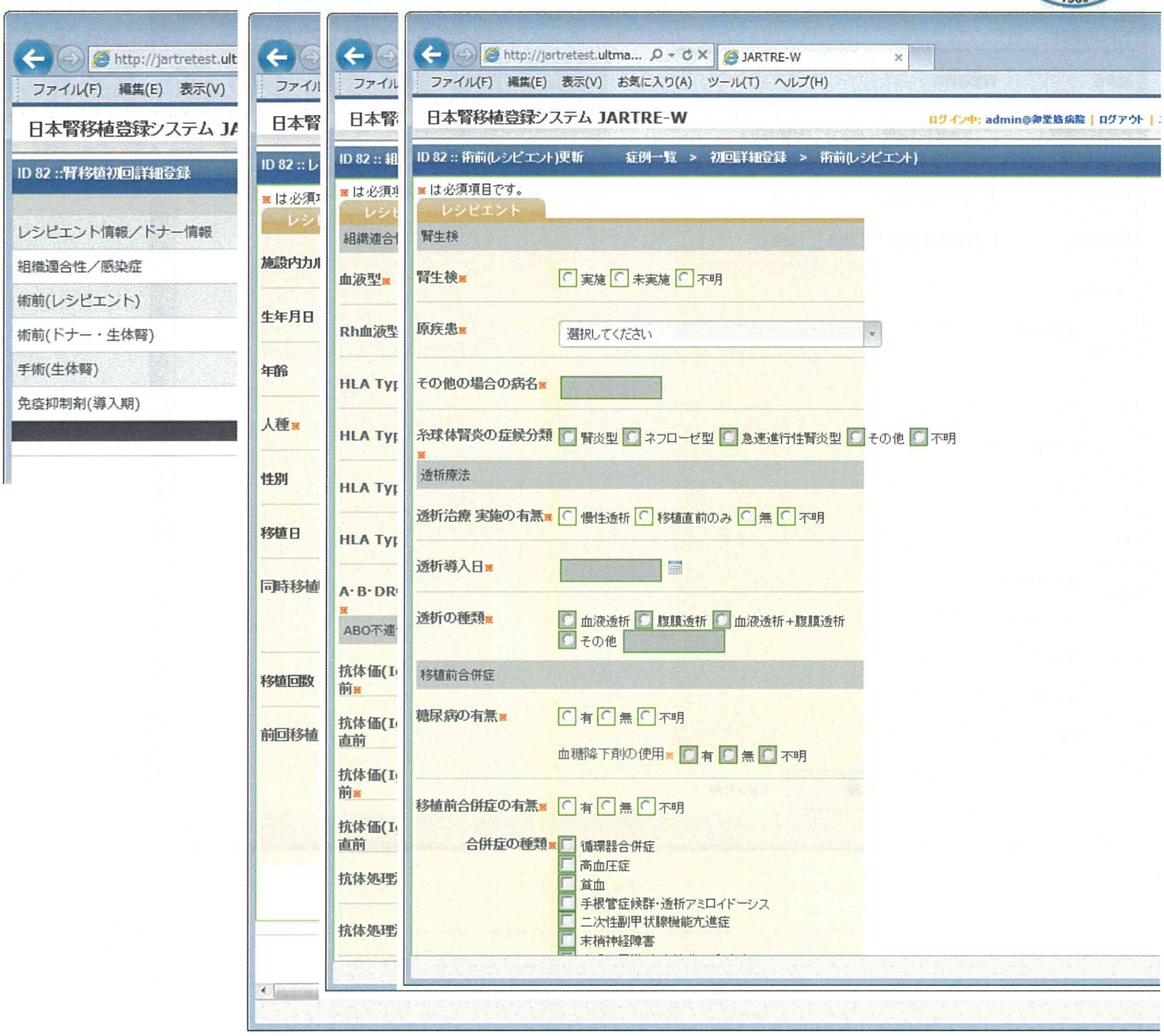
移植登録ID	カルテ番号		施設名	移植腎の種類	移植日	移植後経過年月	
	レシピエント	ドナー					
82	R000082	D000082	中央病院	生体腎	2005/11/27	6年2ヶ月	症例編集 初回詳細登録 R追跡調査 D追跡調査
81	R000081	D000081	中央病院	献腎(脳死)	2004/10/26	7年3ヶ月	症例編集 初回詳細登録 R追跡調査 D追跡調査
80	R000080	D000080	中央病院	献腎(心停止)	2003/09/25	8年4ヶ月	症例編集 初回詳細登録 R追跡調査 D追跡調査
79	R000079	D000079	中央病院	生体腎	2002/08/24	9年5ヶ月	症例編集 初回詳細登録 R追跡調査 D追跡調査
78	R000078	D000078	中央病院	献腎(脳死)	2001/07/23	10年6ヶ月	症例編集 初回詳細登録 R追跡調査 D追跡調査
77	R000077	D000077	中央病院	献腎(心停止)	2000/06/22	11年7ヶ月	症例編集 初回詳細登録 R追跡調査 D追跡調査
76	R000076	D000076	中央病院	生体腎	2010/05/21	1年8ヶ月	症例編集 初回詳細登録 R追跡調査 D追跡調査
75	R000075	D000075	中央病院	献腎(脳死)	2009/04/20	2年9ヶ月	症例編集 初回詳細登録 R追跡調査 D追跡調査
74	R000074	D000074	中央病院	献腎(心停止)	2008/03/19	3年10ヶ月	症例編集 初回詳細登録 R追跡調査 D追跡調査
73	R000073	D000073	中央病院	生体腎	2007/02/18	4年11ヶ月	症例編集 初回詳細登録 R追跡調査 D追跡調査
72	R000072	D000072	中央病院	献腎(脳死)	2006/01/17	6年	症例編集 初回詳細登録 R追跡調査 D追跡調査
71	R000071	D000071	中央病院	献腎(心停止)	2005/12/16	6年1ヶ月	症例編集 初回詳細登録 R追跡調査 D追跡調査
70	R000070	D000070	中央病院	生体腎	2004/11/15	7年2ヶ月	症例編集 初回詳細登録 R追跡調査 D追跡調査
69	R000069	D000069	中央病院	献腎(脳死)	2003/10/14	8年3ヶ月	症例編集 初回詳細登録 R追跡調査 D追跡調査
68	R000068	D000068	中央病院	献腎(心停止)	2002/09/13	9年4ヶ月	症例編集 初回詳細登録 R追跡調査 D追跡調査
67	R000067	D000067	中央病院	生体腎	2001/08/12	10年5ヶ月	症例編集 初回詳細登録 R追跡調査 D追跡調査
66	R000066	D000066	中央病院	献腎(脳死)	2000/07/11	11年6ヶ月	症例編集 初回詳細登録 R追跡調査 D追跡調査
65	R000065	D000065	中央病院	献腎(心停止)	2010/06/10	1年7ヶ月	症例編集 初回詳細登録 R追跡調査 D追跡調査
64	R000064	D000064	中央病院	生体腎	2009/05/09	2年8ヶ月	症例編集 初回詳細登録 R追跡調査 D追跡調査
63	R000063	D000063	中央病院	献腎(脳死)	2008/04/08	3年9ヶ月	症例編集 初回詳細登録 R追跡調査 D追跡調査



新規移植症例登録

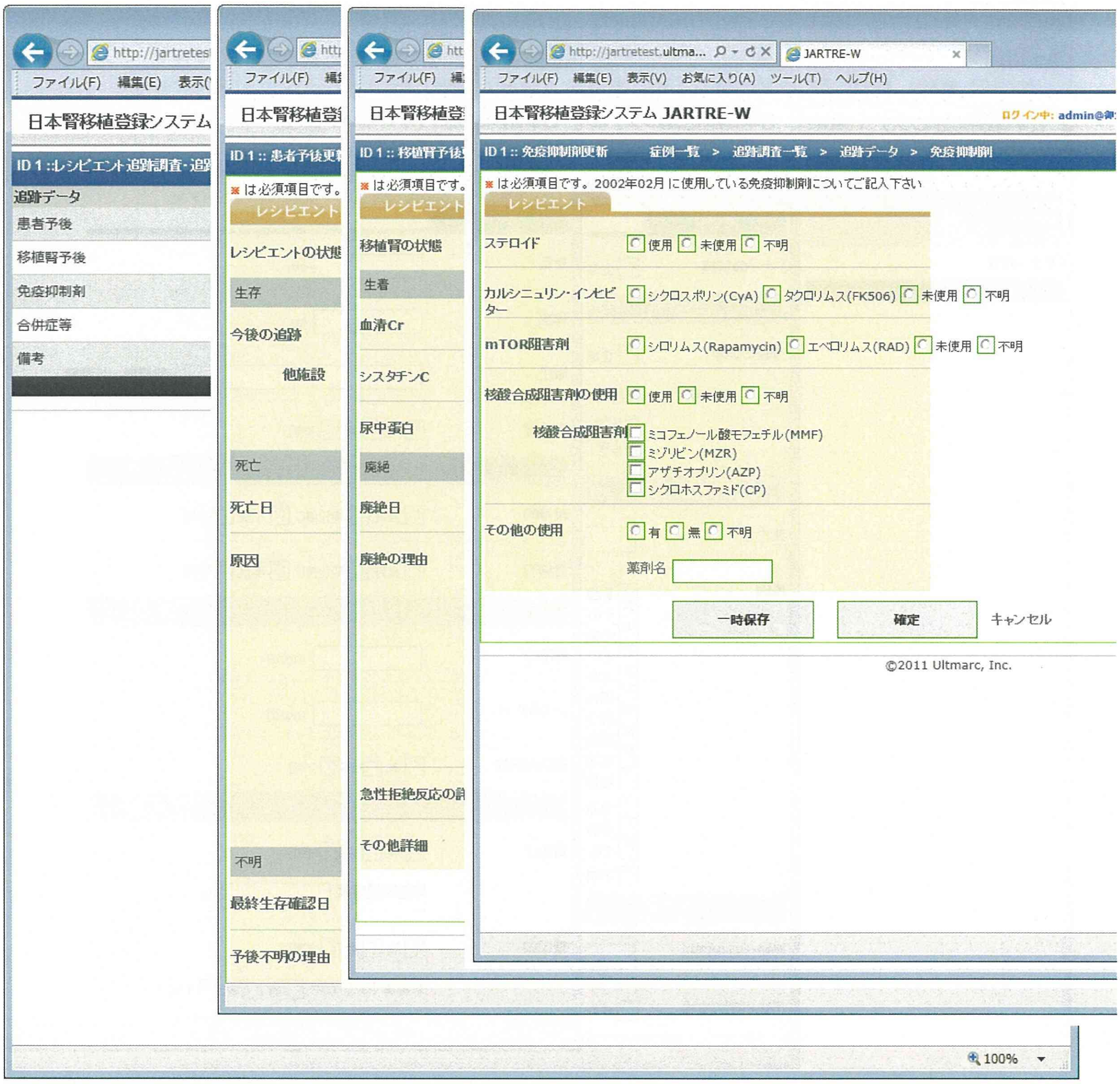
従来のFAXによる実施報告

初回詳細登録

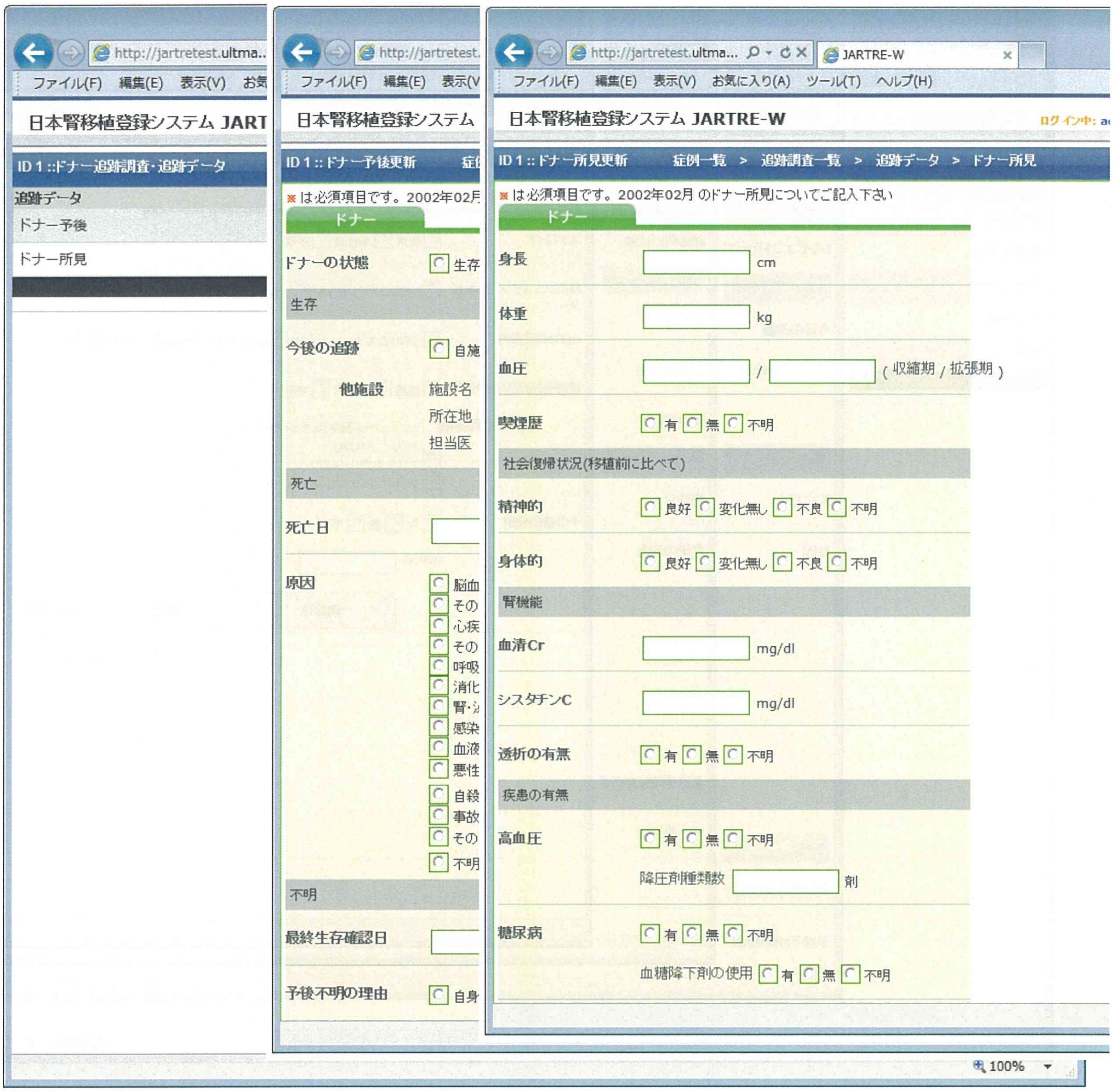


http://jartretest.ult
ファイル(F) 編集(E) 表示(V)
日本腎移植登録システム JA
ID 82 ::腎移植初回詳細登録
レシピエント情報／ドナー情報
組織適合性／感染症
術前(レシピエント)
術前(ドナー・生体腎)
手術(生体腎)
免疫抑制剤(導入期)
施設内カル
生年月日
年齢
人種
性別
移植日
同時移植
移植回数
前回移植
組織適合
血液型
Rh血液型
HLA Typ
A･B･DR
ABO不適
抗体価(I
抗体処理
http://jartretest.ultma...
JARTRE-W
ファイル(F) 編集(E) 表示(V) お気に入り(A) ツール(T) ヘルプ(H)
日本腎移植登録システム JARTRE-W
ログイン中: admin@御茶協病院 | ログアウト
ID 82 :: 術前(レシピエント)更新 症例一覧 > 初回詳細登録 > 術前(レシピエント)
は必須項目です。
レシピエント
腎生検
腎生検 実施 未実施 不明
原疾患 選択してください
その他の場合の病名
糸球体腎炎の症候分類 腎炎型 ネフローゼ型 急速進行性腎炎型 その他 不明
透析療法
透析治療 実施の有無 慢性透析 移植直前のみ 無 不明
透析導入日
透析の種類 血液透析 腹膜透析 血液透析＋腹膜透析 その他
移植前合併症
糖尿病の有無 有 無 不明
血糖降下剤の使用 有 無 不明
移植前合併症の有無 有 無 不明
合併症の種類 循環器合併症
高血圧症
貧血
手根管症候群･透析アミロイドーシス
二次性副甲状腺機能亢進症
末梢神経障害

レシピエント追跡調査

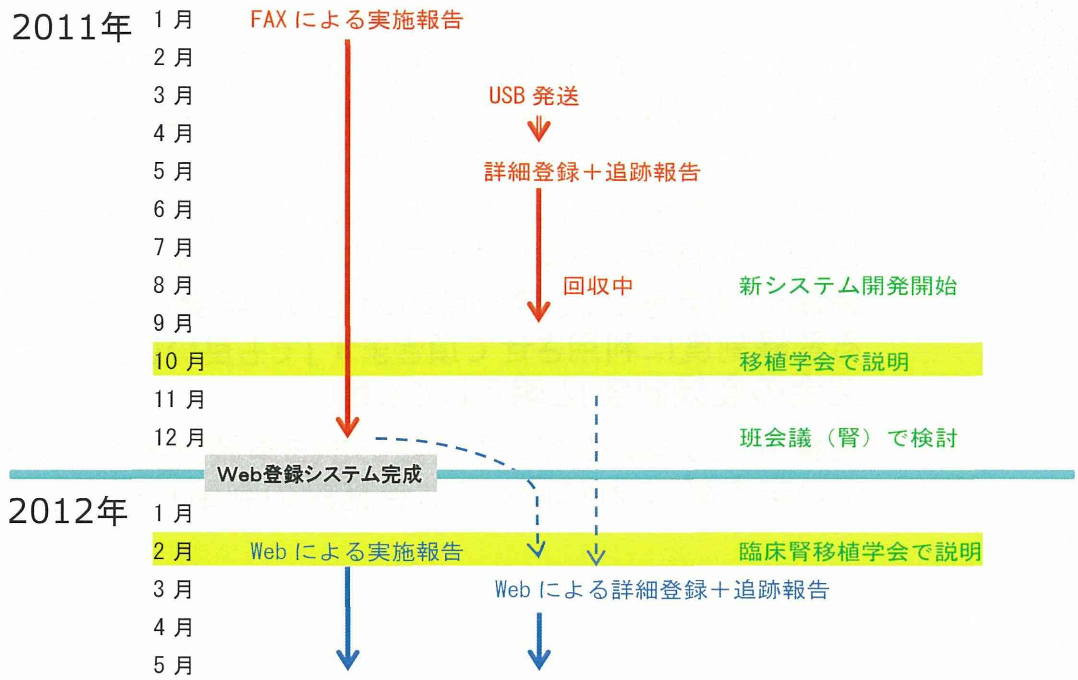

日本腎移植登録システム JARTRE-W
ID 1 :: 免疫抑制剤更新　症例一覧 > 追跡調査一覧 > 追跡データ > 免疫抑制剤
※は必須項目です。2002年02月 に使用している免疫抑制剤についてご記入下さい
レシピエント
ステロイド　使用 未使用 不明
カルシニューリン・インヒビター　シクロスポリン(CyA) タクロリムス(FK506) 未使用 不明
mTOR阻害剤　シロリムス(Rapamycin) エベロリムス(RAD) 未使用 不明
核酸合成阻害剤の使用　使用 未使用 不明
核酸合成阻害剤　ミコフェノール酸モフェチル(MMF) ミゾリビン(MZR) アザチオプリン(AZP) シクロホスファミド(CP)
その他の使用　有 無 不明
薬剤名
一時保存
確定
キャンセル
©2011 Ultmarc, Inc.
追跡データ
患者予後
移植腎予後
免疫抑制剤
合併症等
備考
レシピエントの状態
生存
今後の追跡
他施設
死亡
死亡日
原因
不明
最終生存確認日
予後不明の理由
移植腎の状態
生着
血清Cr
シスタチンC
尿中蛋白
廃絶
廃絶日
廃絶の理由
その他詳細
100%

ドナー追跡調査


日本腎移植登録システム JART
ID 1 ::ドナー追跡調査･追跡データ
追跡データ
ドナー予後
ドナー所見
日本腎移植登録システム
ID 1 :: ドナー予後更新
※は必須項目です。2002年02月
ドナー
ドナーの状態
生存
今後の追跡
他施設
施設名
所在地
担当医
死亡
死亡日
原因
不明
最終生存確認日
予後不明の理由
日本腎移植登録システム JARTRE-W
ID 1 :: ドナー所見更新
症例一覧 > 追跡調査一覧 > 追跡データ > ドナー所見
※は必須項目です。2002年02月 のドナー所見についてご記入下さい
ドナー
身長 cm
体重 kg
血圧 / (収縮期 / 拡張期)
喫煙歴 有 無 不明
社会復帰状況(移植前に比べて)
精神的 良好 変化無し 不良 不明
身体的 良好 変化無し 不良 不明
腎機能
血清Cr mg/dl
シスタチンC mg/dl
透析の有無 有 無 不明
疾患の有無
高血圧 有 無 不明
降圧剤種類数 剤
糖尿病 有 無 不明
血糖降下剤の使用 有 無 不明
100%

JSCRT

新システムまでのロードマップ



JSCRT

すでに新しい腎移植登録が可能

○ 現在、マニュアルの作成中。

○ 今後、腎移植施設の登録、登録担当者の登録、パス　ワードの配布。

○ 必要なら、各施設の倫理委員会でインターネット登録について申請し、認可を得る。

→ 2012年1月1日～　FAXでの実施報告 なし
直接、インターネットで登録

JSCRT

日本移植学会倫理委員会の見解

1. 登録に関する個別同意書の取得は不要で、口頭や掲示での「もし登録に承諾頂けない場合には、担当医や窓口までお申し出下さい」といった表現で良い。
2. その際、登録システムを明示する必要はなく、「登録内容は個人が特定できないような形にして、プライバシーには最細の注意をして、学術目的のために学会などが運営する登録制度に利用させて頂きます」でも良いし、「肝移植研究会の登録制度」と明示しても良い。
3. 治療介入がないので、各施設のIRB申請は不要と判断していますが、これに関しては各施設の判断が優先される。

JSCRT

今後の予定

- 移植施設の登録担当者へ、IDとパスワードをマニュアルとともに郵送
- 初回ログインの時に、メールアドレスを登録し、以後、2012年1月1日からの症例を登録
- 2011年の症例の詳細登録、2010年以前の症例の追跡調査は、2～3ヶ月後から可能
- 必要なら、各施設の倫理委員会でインターネット登録について申請し、認可を得る。

Multistate time-to-event modelling for kidney transplantation registry data

Makiko Naka Mieno*1, Takashi Yagisawa*2, Kenji Yuzawa*3, Shiro Takahara*4

*1. Department of Medical Informatics, Jichi Medical University, *2. Department of Urology, Jichi Medical University,
*3. Department of Transplantation Surgery, National Hospital Organization Mito Medical Center,
*4. Department of Advanced Technology of Transplantation, Osaka University Graduate School of Medicine

INTRODUCTION

● In the event history data analysis, multistate time-to-event modelling approach has been widely used. For kidney transplantation data, death with functioning graft is a common cause of graft loss.

● The differences of the risk factors onto these competing events, death with functioning graft and other graft failure, have not been examined in detail.

AIMS

To evaluate the long-term graft survival with competing risks,
and the effect of the covariates on the cumulative incidence of graft failure or death with functioning graft.

SUBJECTS

● <u>National registry database</u> for kidney transplantation in Japan.

● All transplant cases performed in Japan are to be registered. The database is updated every year.

● **Baseline** characteristics: transplantation date, centre, living / deceased (heart-beating or non-heart beating) donor information, recipient's and donor's sex, age, race and blood types (HLA and ABO), original diseases, ischemia time, pre-transplant complications, duration of dialysis therapy, the status of viral antigens and antibodies, immunosupressants used, etc.

● **Follow-up** information: recipient's survival and graft survival, cause of death, cause of non-function, complications, and acute rejection history, as well as donor's survival, renal function for living donor transplants.

● We analysed <u>first-time 10,517 living donor transplants</u> and <u>2,792 deceased donor transplants</u>, performed between 1992 and 2009. The median follow-up period was 6 years.

● General Kaplan-Meier estimates for 1-year, 5-year graft survival were 96.2%, 89.0% (living donor transplants) and 87.7%, 73.8% (deceased donor transplants), respectively.

● There were 2,751 graft failures, including 592 death with functioning graft cases.

MODELS

● Multistate time-to-event model with competing events.

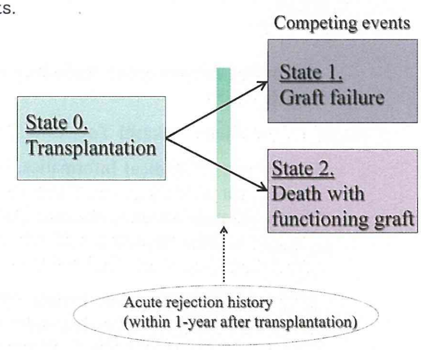
● Fine & Gray's proportional hazards model was used to estimate the covariate effects.

- recipient's sex, age, donor's age, the number of HLA-mismatches, pre-transplant dialysis, primary cause of end-stage renal disease (diabetes or not), the year of the transplantation performed, and the warm and cold ischemia time (only for the deceased donor transplants).

- The subdistribution hazard function for cause k is:

$$h_k^*(t;z) = h_{0k}^*(t)\exp(\beta Z)$$

which enables the direct estimation of the effect of covariates.



RESULTS

Table 1a. Hazard ratios for graft failure without death (living)

Variables	Hazard ratio [95%CI]	P-value
Year of transplantation	0.92 [0.90-0.94]	<.0001
Recipient's sex (F/M)	0.77 [0.66-0.89]	0.0004
Recipient's age (/10)	0.93 [0.88-0.99]	0.028
Donor's age (/10)	1.28 [1.20-1.38]	<.0001
No. of HLA-mismatch	1.09 [1.02-1.15]	0.009
Pre-transplant dialysis (year)	0.98 [0.83-1.16]	0.810
Original disease (DM/not DM)	1.74 [1.32-2.30]	<.0001

Table 1b. Hazard ratios for death with functioning (living)

Variables	Hazard ratio [95%CI]	P-value
Year of transplantation	0.91 [0.89-0.94]	<.0001
Recipient's sex (F/M)	0.78 [0.59-1.04]	0.094
Recipient's age (/10)	1.68 [1.51-1.88]	<.0001
Donor's age (/10)	1.03 [0.92-1.17]	0.569
No. of HLA-mismatch	0.99 [0.90-1.09]	0.800
Pre-transplant dialysis (year)	1.48 [1.12-1.96]	0.006
Original disease (DM/not DM)	1.23 [0.78-1.94]	0.369

Table 2a. Hazard ratios for graft failure without death (deceased)

Variables	Hazard ratio [95%CI]	P-value
Year of transplantation	0.95 [0.92-0.97]	<.0001
Recipient's sex (F/M)	0.77 [0.62-0.97]	0.025
Recipient's age (/10)	1.00 [0.90-1.10]	0.948
Donor's age (/10)	1.17 [1.09-1.26]	<.0001
No. of HLA-mismatch	1.08 [0.99-1.18]	0.065
Pre-transplant dialysis (year)	0.99 [0.89-1.12]	0.936
Warm ischemia time (min)	1.22 [1.04-1.43]	0.017
Cold ischemia time (hour)	1.09 [0.95-1.25]	0.203
Original disease (DM/not DM)	1.25 [0.71-2.20]	0.443

Table 2b. Hazard ratios for death with functioning (deceased)

Variables	Hazard ratio [95%CI]	P-value
Year of transplantation	0.94 [0.90-0.98]	0.007
Recipient's sex (F/M)	0.44 [0.29-0.67]	0.0001
Recipient's age (/10)	1.64 [1.34-2.02]	<.0001
Donor's age (/10)	1.07 [0.99-1.02]	0.225
No. of HLA-mismatch	1.06 [0.93-1.22]	0.382
Pre-transplant dialysis (year)	1.34 [1.10-1.62]	0.004
Warm ischemia time (min)	1.13 [0.86-1.48]	0.390
Cold ischemia time (hour)	1.17 [0.93-1.46]	0.174
Original disease (DM/not DM)	2.20 [0.99-4.88]	0.052

● For graft failure without death: donor's factor, histocompatibility, and ischemia time were more critical factors.

● For death with functioning: recipient's factors were more influential.

CONCLUSIONS

● When estimating the graft survival, causes of graft loss should be considered.

● Multistate time-to-event modelling approach illustrates the situation well.

● Further study is needed for modelling to include the intermediate state information more appropriately.

REFERENCES

Fine J. and Gray R. A proportional hazards model for subdistribution of a competing risk. Journal of the American Statistical Association 1999.

Kalbfleisch JD. and Prentice RL. The Statistical Analysis of Failure Time Data 2nd Edition. Wiley, 2002.

Pintilie M. Competing Risks – A Practical Perspective. Wiley, 2006.

Opelz G and Döhler B. Association of HLA mismatch with death with a functioning graft after kidney transplantation: a collaborative transplant study report. Am J Transplant 2012.

* This work was supported by Health and Labour Sciences Research Grant in Japan.

pupae as there was in the Neural Network Method that, especially in its capacity to emulate non-linear data, seems to be an interesting option.

P2K02

Multistate time-to-event modelling for kidney transplantation registry data

Makiko Mieno, Takashi Yagisawa, Kenji Yuzawa, Shiro Takahara

Department of Medical Informatics, Jichi Medical University; Department of Urology, Jichi Medical University; Department of Transplantation Surgery, National Hospital Organization Mito Medical Center; Department of Advanced Technology of Transplantation, Osaka University Graduate School of Medicine

Background In the event history data analysis, multistate time-to-event modelling approach has been widely used. For kidney transplantation data, death with functioning graft is a common cause of graft loss. The differences of the risk factors onto these competing events, death with functioning graft and other graft failure, have not been examined in detail.
Objectives To evaluate the long-term graft survival with competing risks, and the effect of the covariates on the cumulative incidence of graft failure or death with functioning graft.
Methods By using the kidney transplantation registry data in Japan from 1992 to 2009, we analysed first-time 10,517 living donor transplants and 2,792 deceased donor transplants. The association of the covariates with the outcomes was evaluated using the restricted cubic splines, and the multivariate analyses, the use of Fine and Gray proportional hazards model for the subdistribution of the competing risks. The recipient's sex, recipient's age, donor's age, the number of HLA-mismatches, pre-transplant dialysis, primary cause of end-stage renal disease (diabetes or not) and the year of the transplantation performed were examined for living donor transplants. The warm ischemia time and the total ischemia time were also included for deceased donor transplants analysis. Additionally, the acute rejection history within 1-year after transplantation was considered as the intermediate state.
Results The hazard ratios of the transplantation year showed significantly decreasing trend for graft failure and death with functioning graft. For graft failure event, male recipient and older donor were significant risk factors whereas older recipient and longer pre-transplant dialysis duration were more important factors for death with functioning graft event. The acute rejection state in the event history was also nonignorable for the future risks of the events.
Conclusions When calculating graft survival, causes of graft loss should be considered and multistate modelling approach illustrates the situation well.

P2K03

Longitudinal discrete data analysis: comparison of four statistical models applied on repeated malaria episodes data from Mali

Sagara Issaka, Dicko Alassane, Djimde Abdoulaye, Doumbo Ogobara K, Giorgi Roch, Gaudart Jean

Université des Sciences, Techniques et Technologies; Aix-Marseille Univ, UMR912 (SESSTIM), 13005 Marseille, France

Background The analysis of repetitive events data in cohort studies is quite common in biomedicine. The literature review indicates that statistical models used in analyzing these data are often based on time to the first event or consider events within subject as independent, therefore ignoring the non-independence of events in the same individual. However, methods exist to analyze data taking into account the non-independence of repeated events within subjects.
Objectives This work aimed to analyze repeated malaria episodes with different models in order to advise on the best model estimating malaria risk in respective to covariates.
Methods Data were collected from July 2005 to July 2007 in Bougala-Hameau, Sikasso, Mali. The study main objective was to compare malaria incidences in 3 different artemisinin based combination therapy (ACT) arms: artesunate/amodiaquine (AS + AQ), artesunate/sulfadoxine-pyrimethamine (AS + SP) and artemether-lumefantrine (AL). The AL arm and the age group $\geq$15 years old were used as reference groups in RR computing. We used 4 different models to analyze the data using Stata®: the Poisson model, the generalized estimating equation (*GEE*) using Poisson distribution, the extended Cox models (Anderson-Gill model -AG-) and the frailty model. Model comparison was based on the magnitude and confidence intervals of relative risks (RR) in respective to relevant covariates, power and goodness-of-fit criteria.
Results The 780 subjects enrolled yield a total of 2,473 malaria episodes. The malaria episode RR for patients in the AS + AQ and AS + SP arms were respectively: 0.85 (0.77–0.93) and 0.82 (0.74–0.90) using Poisson model, 0.95 (0.84–1.08) and 0.90 (0.80–1.03) using the *GEE model,* 0.78 (0.65–0.92) 0.79 (0.66–0.94) using Anderson-Gill model, 0.61 (0.45–0.84) and 0.64 (0.47–0.88) using Frailty model. The malaria episodes RR for the patients in the age groups; 10–14 years old, 5–9 years old and <5 years were respectively: 1.60 (1.11–2.30), 2.40 (1.75–3.30) and 2.71 (1.98–3.71) using Poisson model, 1.68 (0.90–3.14), 2.15 (1.22–3.79) and 2.28 (1.30–4.0) using the *GEE model,* 1.69 (0.81–3.56), 3.22 (1.68–6.17) and 3.60 (1.89–6.84) using Anderson-Gill model, 2.47 (0.75–8.12), 7.51 (2.64–21.34) and 9.11 (3.25–25.57) using Frailty model.
Conclusion All models (except GEE for one covariate) although different in magnitude were able to detect the significant covariate effects showing the power of these models. Anderson-Gill and Frailty models estimated RR with higher magnitude and wider precision.

P2K04

Optimal control applied to tuberculosis models

Cristiana Silva, Delfim Torres

CIDMA, Department of Mathematics, University of Aveiro

Background Most cases of tuberculosis (TB) are caused by the Mycobacterium tuberculosis, which is usually transmitted via airborne infection from someone who has active TB. Approximately 10 % of infected people with Mycobacterium tuberculosis develop active TB disease, that is, approximately 90 % of infected people remain latent. Latent infected TB people are asymptomatic and do not transmit TB, but may progress to active TB through endogenous reactivation or exogenous reinfection. The anti-TB drugs developed since 1940 have helped to reduce the mortality rates significantly: in clinical cases, cure rates of 90 % have been documented. However, TB remains a global public health emergency and following the World Health Organization (WHO) in 2010, there were an estimated 8.5–9.2 million cases and 1.2–1.5 million deaths (including deaths from TB among HIV-positive people). TB is the second leading cause of death from an infectious disease worldwide (after HIV).

Optimal control is a branch of mathematics that involves finding optimal ways of controlling a dynamic system. While the usefulness of optimal control theory in epidemiology is nowadays well recognized, results pertaining to tuberculosis are a rarity [1].
Objective and methods We apply optimal control theory to a TB model given by a system of ordinary differential equations. There are

Online Registry and Tracking System for Kidney and Liver Transplantation in Japan

Kenji Yuzawa[1], Hiroshi Umeshita[2], Makiko Mieno[3], Shiro Takahara[4],

1, Dept. of Transpl. Surg., Nat. Hosp. Org. Mito Med. Center
2, Dept. of Surg., Osaka Univ. Grad. School of Med.
3, Dept. of Med. Informatics, Center of Information, Jichi Med. Univ.
4, Dept. of Advanced Technology of Transpl., Osaka Univ. Grad. School of Med.

Japan

TTS2012
Berlin, July 15, 2012

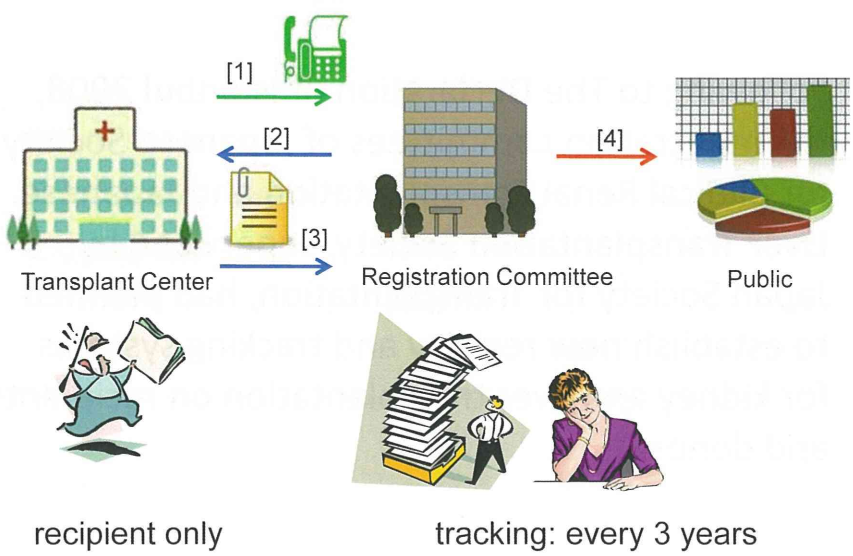
Introduction

Following to The Declaration of Istanbul 2008, the registration committees of Japanese Society for Clinical Renal Transplantation and Japanese Liver Transplantation Society, supervised by Japan Society for Transplantation, had planned to establish new registry and tracking systems for kidney and liver transplantation on recipients and donors.

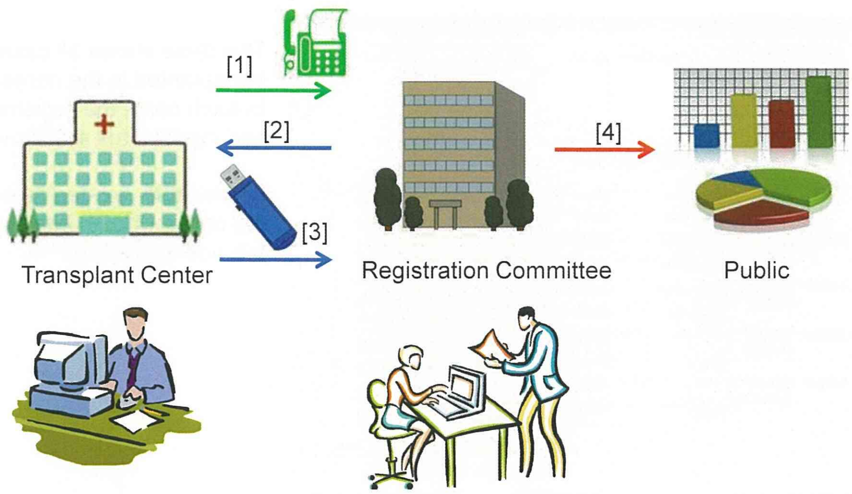
Evolution in Registration System for Organ Transplantation in Japan

- 1st　Paper Registration
  ～2007
- 2nd　Electrical Registration
  using USB memory
  2008～2011 in renal Tx
- 3rd　Internet Registration
  2011～ in Liver Tx
  2012～ in Renal Tx

1st Registration and Tracking System



2nd Registration and Tracking System



both recipient and donor

tracking: every year

JARTRE system

Japan Renal Transplantation Registry

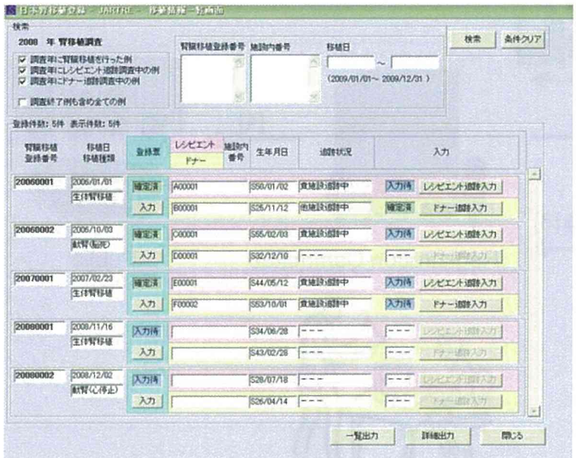
USB memory

with software for registration and tracking of both all donors and recipients in the transplant center

Log-in screen of JARTRE

After input of the passwords, Log-in screen appears. On this screen, we can select the case table, center information, set up screens, etc.

Transplant Cases Table



registered number

date of transplantation
living or cadaveric

recipient ID
donor ID

recipient DOB
donor DOB

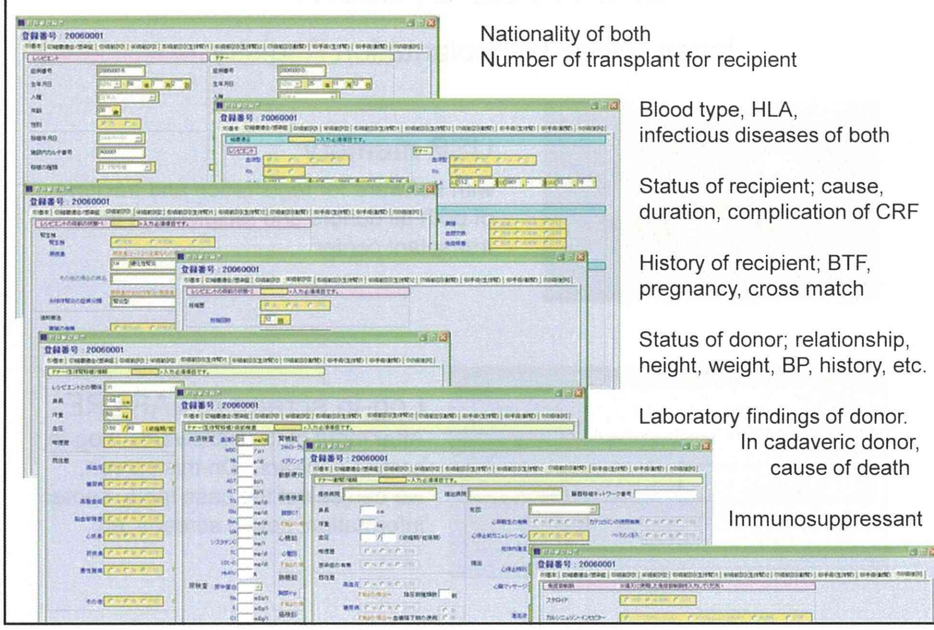
registration status of recipient
registration status of donor

input status of recipient
input status of donor

This table shows all cases transplanted in the center. In each case, the registration and input status are shown.

In this table, we can select the cases whose data are not registered.

Input Screen for the details of the case



Nationality of both
Number of transplant for recipient

Blood type, HLA, infectious diseases of both

Status of recipient; cause, duration, complication of CRF

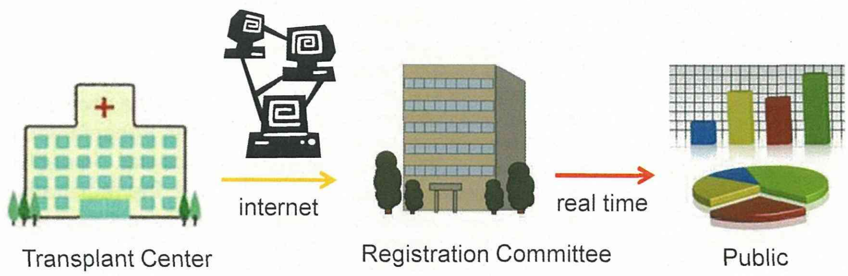
History of recipient; BTF, pregnancy, cross match

Status of donor; relationship, height, weight, BP, history, etc.

Laboratory findings of donor.
In cadaveric donor, cause of death

Immunosuppressant

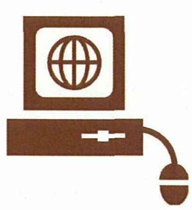
3rd Registration and Tracking System



started in liver Tx in March, 2011
in renal Tx in March, 2012

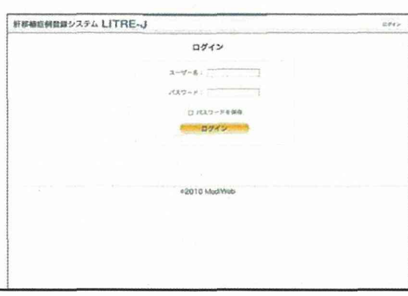
LITRE-J

Liver Tranplantation Registry in Japan



Internet Web system

We can register anywhere with internet using any computer anytime in the transplant center



Log-in screen of LITRE-J

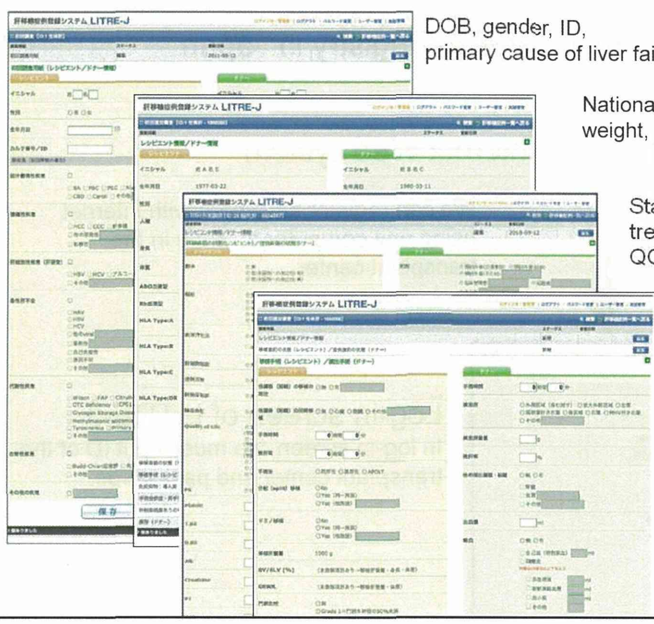
In log-in screen, we must input ID of the transplant center and passwords.

Transplant Cases Table

This table shows all cases transplanted in the center. In each case, the registration and input status are shown.

In this table, we can select the cases whose data are not registered.

Input Screen for the details of the case



DOB, gender, ID, primary cause of liver failure

Nationality, bood type, height, weight, HLA,

Status of recipient, PS, treatment, laboratory data, QOL

Details of the operations of both recipient and donor

More other screen with Status of donor; relationship, height, weight, BP, history, laboratory findings of donor. Immunosuppressant