



Complete Summary

GUIDELINE TITLE

Donor sepsis.

BIBLIOGRAPHIC SOURCE(S)

CARI - Caring for Australasians with Renal Impairment. Donor sepsis. Westmead NSW (Australia): CARI - Caring for Australasians with Renal Impairment; 2005 Jul. 9 p. [20 references]

Caring for Australasians with Renal Impairment. Donor sepsis. Nephrology 2005;10(Suppl 4):S129-32.

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

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IDENTIFYING INFORMATION AND AVAILABILITY
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SCOPE

DISEASE/CONDITION(S)

- Conditions for which kidney donation is indicated
- Transmission of infections from donor to recipient
 - Bacterial (sepsis)
 - Viral (human immunodeficiency virus [HIV], hepatitis B and C, Epstein Barr virus, cytomegalovirus, human T-lymphotropic virus I & II, Creutzfeldt-Jakob disease, herpes simplex virus, herpes zoster virus)
 - Parasitic (syphilis, malaria, rabies)

GUIDELINE CATEGORY

Evaluation
Management
Prevention
Risk Assessment

CLINICAL SPECIALTY

Critical Care
Emergency Medicine
Nephrology
Surgery

INTENDED USERS

Advanced Practice Nurses
Nurses
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

- To discuss available data and recommend a practical approach to minimise the risk of sepsis transmission from donors to recipients, while maximizing donor utilization
- To propose practical guidelines to maximize organ use yet minimize viral risk

TARGET POPULATION

Patients who are potential recipients of kidney donation

INTERVENTIONS AND PRACTICES CONSIDERED

1. Assessment and screening of donor for infection
2. Donor exclusion and allocation criteria, including status of recipient
3. Counseling of recipient regarding status of cytomegalovirus (CMV) positive organs
4. CMV prophylaxis in recipient

MAJOR OUTCOMES CONSIDERED

- Rate of transmission of infection from donor to recipient
- Morbidity
- Mortality

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Databases searched: Medical Subject Heading (MeSH) terms and text words for kidney transplantation and cadaveric organs were combined with MeSH terms and text words for bacterial infections and viral diseases and then combined with the Cochrane highly sensitive search strategy for randomized controlled trials. The search was carried out in Medline (1966–April Week 3, 2005). The Cochrane Renal Group Trials Register was also searched for trial not indexed in Medline.

Date of searches: 4 May 2005.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Levels of Evidence

Level I: Evidence obtained from a systematic review of all relevant randomized controlled trials (RCTs)

Level II: Evidence obtained from at least one properly designed RCT

Level III: Evidence obtained from well-designed pseudo-randomized controlled trials (alternate allocation or some other method); comparative studies with concurrent controls and allocation not randomized, cohort studies, case-control studies, interrupted time series with a control group; comparative studies with historical control, two or more single arm studies, interrupted time series without a parallel control group

Level IV: Evidence obtained from case series, either post-test or pretest/post-test

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Comparison with Guidelines from Other Groups
Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Recommendations of Others. Recommendations regarding use of potential kidney donors with sepsis and other infections for renal transplantation from the following groups were discussed: British Renal Association and European Best Practice Guidelines.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

Definitions for the levels of evidence (I-IV) can be found at the end of the "Major Recommendations" field.

Guidelines

There is no contraindication to general allocation of cytomegalovirus (CMV) (+) organs; however, the donor should be made aware to enable CMV prophylaxis, particularly for CMV (-) recipients. (*Level II evidence*)

Suggestions for Clinical Care

(Suggestions are based on Level III and IV evidence)

- Uncontrolled donor sepsis should be a contraindication to kidney donation.
- Donor sepsis, once controlled with appropriate antibiotic therapy, is not a contraindication to kidney donation (*Level III evidence*).
- Transmission of virus/es from donor to recipient is possible and the risk of this should be minimised by donor assessment and allocation as follows:

Human immunodeficiency virus (HIV): exclusion if antibody (+) or high-risk behaviour (intravenous [IV] drug abuse, commercial or male-male sex during previous 6 months).

Hepatitis B: (HB) surface antigen Ag (+) and isolated hepatitis B virus (HBV) core antibody (Ab)+ unsuitable for general donation, consider for HB surface Ag+ recipients. HBV core Ab+ with HBV surface Ab+ (previous infection) allocate to any HBV surface Ab+ (immune) recipient with specific consent.

Hepatitis C: anti-hepatitis C virus (HCV) (+) – allocate only to anti-HCV (+), RNA (+) recipient with specific consent.

Epstein Barr Virus: EBV (+) – no contraindication to general allocation, however, recipient requires notification as EBV (-) recipients may incur increased risk of primary infection and post-transplant lymphoproliferative disease.

Human T-lymphotropic virus (HTLV) I & II and Creutzfeldt-Jakob disease (CJD) occur at extremely low frequencies in Australia and New Zealand, and were not screened for.

Herpes simplex virus (HSV), herpes zoster virus (HZV), human herpesvirus 6 (HHV-6), and human herpesvirus 8 (HHV-8) are prevalent and may be transmitted, but are not screened for.

- Transmission of syphilis, malaria, rabies and other parasites are unlikely due to rarity of these infections in Australia. However, if donor infection is suspected, appropriate testing and treatment should be given to both donor and recipient.
- A donor will be excluded in the presence of uncontrolled sepsis. If sepsis has occurred but has been controlled with antibiotics, donation should proceed provided the recipient is treated with appropriate antibiotics for at least 3 days post-transplant, and that specific informed consent is obtained from the recipient.
- HIV (+) donors, or those deemed to be at high risk (IV drug abuse, prostitution, male-male sex within the past 6 months) should be excluded from donation.
- Hepatitis B: HB surface Ag+ or isolated HBV core Ab+ unsuitable for donation; HBV core Ab+ and HBV surface Ab+ allocate to any HBV surface Ab+ recipient with specific consent. HBV immunisation should be given to seronegative patients with end-stage kidney disease (ESKD) prior to transplant.
- Hepatitis C: anti-HCV (+) – allocate only to anti-HCV (+), RNA (+) recipient with specific consent.
- Cytomegalovirus: CMV (+) – no contraindication to general allocation, however, donor should be made aware to enable CMV prophylaxis, particularly for CMV (-) recipients (*Level II evidence*).
- Epstein Barr Virus: EBV (+) – no contraindication to general allocation, however, recipient requires notification as EBV (-) recipients may incur an increased risk of primary infection and post-transplant lymphoproliferative disease.

- HTLV I & II and CJD occur at extremely low frequencies in Australia and New Zealand, and are not screened for. Donors from areas where HTLV is endemic (e.g., Caribbean basin) should be screened.
- HSV, HZV, HHV6 and HHV8 are prevalent and may be transmitted, but are not screened for. Varicella immunisation should be considered for seronegative patients with ESKD prior to transplant, but not post-transplant.
- Syphilis: Transmission of syphilis is possible, however, donation may proceed in the presence of a positive serological test for syphilis (e.g., rapid plasma reagin [RPR]) provided a two-week course of penicillin is given to the recipient and specific consent is obtained.
- Tuberculosis: Active mycobacterial infection is a contraindication to transplantation. Donor chest x-ray is recommended to enable risk assessment and in the deceased donor, any suspicious lesions should undergo biopsy and microscopy. In the live donor situation, chest x-ray is also recommended and any suspicious lesions should be assessed by a respiratory specialist.

Definitions:

Levels of Evidence

Level I: Evidence obtained from a systematic review of all relevant randomized controlled trials (RCTs)

Level II: Evidence obtained from at least one properly designed RCT

Level III: Evidence obtained from well-designed pseudo-randomized controlled trials (alternate allocation or some other method); comparative studies with concurrent controls and allocation not randomized, cohort studies, case-control studies, interrupted time series with a control group; comparative studies with historical control, two or more single arm studies, interrupted time series without a parallel control group

Level IV: Evidence obtained from case series, either post-test or pretest/post-test

CLINICAL ALGORITHM(S)

None provided

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Appropriate assessment and exclusion of potential kidney donors with infection for renal transplantation
- Prevention of transmission of infection from kidney donors to kidney recipients

POTENTIAL HARMS

Not stated

CONTRAINDICATIONS

CONTRAINDICATIONS

Uncontrolled donor sepsis should be a contraindication to kidney donation.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

Implementation and Audit

Set up a register of kidneys discarded due to sepsis (suggestion only)

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Living with Illness

IOM DOMAIN

Effectiveness
Safety

IDENTIFYING INFORMATION AND AVAILABILITY

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2005 Jul

GUIDELINE DEVELOPER(S)

Caring for Australasians with Renal Impairment - Disease Specific Society

SOURCE(S) OF FUNDING

Industry-sponsored funding administered through Kidney Health Australia

GUIDELINE COMMITTEE

Not stated

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Not stated

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

All guideline writers are required to fill out a declaration of conflict of interest.

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the [Caring for Australasians with Renal Impairment Web site](#).

Print copies: Available from Caring for Australasians with Renal Impairment, Locked Bag 4001, Centre for Kidney Research, Westmead NSW, Australia 2145

AVAILABILITY OF COMPANION DOCUMENTS

The following is available:

- The CARI guidelines. A guide for writers. Caring for Australasians with Renal Impairment. 2006 May. 6 p.

Electronic copies: Available from the [Caring for Australasians with Renal Impairment \(CARI\) Web site](#).

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI Institute on March 28, 2008. The information was verified by the guideline developer on June 11, 2008.

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