Supplementary Table 1 General and site-specific clinical indices of post-transplant infection

General indices	Fever, tachycardia, white blood cell count, neutrophil ratio, peripheral blood culture, serum procalcitonin (PCT) and C-reactive protein (CRP), serum fungal β(1,3)-D-glucan, CMV IgG/IgM, CMV DNA, blood endotoxin, IL-6
Site-specific indices	
Lung	Cough, sputum purulence, oxygenation impairment, radiographic examinations, pleural culture, Gram stain and culture of lower respiratory tract secretion, T-SPOT test
Abdomen[1]	Chill, jaundice, abdominal pain, distension, tenderness or rebound tenderness, bowel sound, radiographic examinations, drainage culture, elevated serum bilirubin, biliary drainage culture
Incision	Wound erythema and blanching, tenderness, pain, purulent discharge, leukocytosis
Urinary tract	Urgency, pain or tenderness at involved site, pyuria, hematuria, microscopic examination (urinalysis and Gram stain), radiographic examinations, urine culture
Blood stream	Catheter tip or segment culture, radiographic examinations

[1]include the biliary tract

Supplementary Table 2 Infection sites of post-transplant infection patient group (n=53)

Infection sites	Number of cases (%)
Multiple infection sites	
Lung and abdomen	3 (5.7%)
Single infection site	
Lung	29 (54.7%)
Abdomen	10 (18.8%)
Urinary tract	2 (3.8%)
Intravascular catheter	2 (3.8%)
Incision	1 (1.9%)
Bloodstream infection	6 (11.3%)
Total	53 (100%)

Supplementary Table 3 Summary of microbiological cultures of the post-transplant infection patient group (n=53)

Pathogens	Number of cases (%)
Bacteria	30 (56.6%)
Fungus	7 (13.2%)
Bacteria + fungus	6 (11.3%)
Bacteria + bacteria	2 (3.8%)
Negative	8 (15.1%)[1]

Total	53 (100%)

[1]include 3 patients infected by cytomegalovirus

Attachment number 1 Definition of post-transplant infection

PTI	Brief Definition
Pneumonia	Presence of a radiographic infiltrate, with suspicion that the infiltrate is caused by infection. This can be determined by measurements of fever, white blood cell count, degree of sputum purulence, degree of oxygenation impairment, and the presence of potential pathogens in lower respiratory tract secretions.
Abdominal infection	Abdominal infections include primary, secondary, and tertiary peritonitis, intra-abdominal abscess, biliary tract infections et al. Primary peritonitis are those arise in the absence of an identifiable anatomical derangement in the intra-abdominal viscera. Secondary peritonitis is those occurring secondary to an anatomical derangement such as perforation or obstruction of a hollow viscera. Tertiary peritonitis is defined as persistent intra-abdominal inflammation and clinical signs of peritoneal irritation following secondary peritonitis from nosocomial pathogens. Intra-abdominal abscess is diagnosed by

	clinical, radiographic, and direct surgical confirmation of an inflammatory collection within the peritoneal space or surrounding structures.
Incision	Surgical site infection is diagnosed by opening a portion of the surgical wound and draining pus.
Urinary tract	Urinary tract infection is diagnosed by fever, urgency, pyuria, hematuria, localized pain or tenderness at involved site, purulent drainage from the affected site, organism isolated from culture, positive Gram stain, radiographic evidence of infection
Blood stream	Bloodstream infection (BSI) is diagnosed by pathogen cultured from one or more blood cultures. The organism cultured from blood is not related to an infection at another site.
Introvascular catheter	Catheter segment/tip culture and peripheral positive blood culture share the same microorganism.

Attachment number 2 The protocol of antifungal prophylaxis

High risk factors of invasive fungal disease (IFD) for the liver transplant recipients: 1. Major risk factors include re-transplantation, fulminant liver failure, MELD score≥30; 2. Minor risk factors include MELD score 20~30, Roux-en-Y choledochejejunostomy, massive transfusion, renal failure (GFR

<50mL/min), multiple Candida colonization. Caspofungin (70mg the first day, followed by 50mg daily) or micafungin (50mg daily) was used as antifungal prophylaxis when one of the major risk factors or two of the minor risk factors existed. Antifungal drug was used for 2~4 weeks or withdrawn when the risk factors were removed.

Attachment number 3 The protocol of anti-cytomegalovirus prophylaxis

In case of a cytomegalovirus (CMV) immunoglobulin-G (IgG)-positive donor and CMV IgG-negative recipient, prophylaxis with ganciclovir (5 mg/kg daily) or oral valganciclovir (900 mg daily) was used until 3~6 months after transplantation; whereas in case of a CMV IgG-positive donor and CMV IgG-positive recipient, prophylaxis was not performed but the patients were screened weekly for CMV DNA by whole- blood quantitative polymerase chain reaction until 90 days after OLT. If CMV DNA exceeded 10000 copies/mL, the patients were started on pre-emptive therapy with ganciclovir 5 mg/kg/12 h or oral valganciclovir 900 mg/12 h.