

Supplementary Table 1. Performance of ChatGPT and GPT-4 in virtual scenarios regarding renal transplantation

	Question Description	Assigned Label	ChatGPT/GPT-4 Label	ChatGPT/GPT-4 Performance
1.	Clinical predictors of graft survival	Prognosis	GI/Treatment	A/A
2.	Sources of renal grafts	GI	GI/GI	A/D
3.	Case presentation/Needed genetic test	Diagnosis	Diagnosis/Diagnosis	D/A
4.	Image modality needed	Diagnosis	Diagnosis/Diagnosis	A/A
5.	Case presentation/ Appropriate Treatment	Treatment	Treatment/Treatment	A/A
6.	Case presentation/ Appropriate Treatment	Treatment	Treatment/Treatment	D/A
7.	Case presentation/Risk of infection development	Prognosis	Diagnosis/Treatment	A/A
8.	Case presentation/Immunosuppressive side effects	GI	Treatment/Treatment	A/A
9.	Criteria of donor donation	GI	GI/GI	D/D
10.	Side effects of certain immunosuppressives	GI	GI/Treatment	A/A
11.	Case presentation/Risk of disease relapse	Prognosis	Diagnosis/Treatment	A/A
12.	Contraindications of transplantation	GI	Diagnosis/Diagnosis	D/A
13.	Differences between immunosuppressive drugs	GI	GI/GI	A/A
14.	Case Presentation/Graft rejection DD	DD	DD/Treatment	A/A
15.	Case Presentation/Diagnostic findings of disease	Diagnosis	Diagnosis/Diagnosis	A/A
16.	Case Presentation/Diagnostic findings of disease	Diagnosis	Diagnosis/Diagnosis	A/D
17.	Mechanism of GVHD	GI	GI/Diagnosis	A/A
18.	Pathogens associated with certain infection	GI	Diagnosis/Diagnosis	A/A
19.	Histocompatibility antigens	GI	GI/GI	A/A
20.	Complement factors	GI	Diagnosis/GI	D/A
21.	ESKD incidence	Prognosis	Prognosis/GI	D/A
22.	Aitiology of ESKD	GI	Diagnosis/GI	A/A
23.	Mortality rate of dialysis	Prognosis	Prognosis/GI	D/D
24.	Indications for native nephrectomy	Treatment	Treatment/Treatment	A/A
25.	Graft Survival Rates	Prognosis	Prognosis/Prognosis	D/A
26.	Side effects of certain immunosuppressives	GI	Treatment/GI	D/A
27.	Indications of pediatric renal transplantation	GI	Treatment/Treatment	D/A
28.	Live renal donor characteristics	GI	Treatment/GI	A/A
29.	Effect of certain treatment	Treatment	Treatment/Treatment	D/A
30.	Graft survival rates in deceased transplantation	Prognosis	Diagnosis/Diagnosis	A/A
31.	Contraindications of renal transplantation	GI	Diagnosis/Treatment	D/A
32.	Treatment options for acute rejection	Treatment	Treatment/Treatment	D/D
33.	Diagnostic findings of disease	Diagnosis	Diagnosis/Diagnosis	A/A
34.	Incidence of disease relapse	Prognosis	Prognosis/Prognosis	A/D
35.	Contraindications of renal transplantation	GI	Diagnosis/Diagnosis	D/D
36.	Risk factors for disease development	Prognosis	Prognosis/DD	D/A
37.	Cardiovascular disease development risk	Prognosis	Prognosis/DD	A/A
38.	Prognostic factors of survival	Prognosis	Prognosis/Prognosis	A/A
39.	Immunosuppressive drug mechanism	GI	Treatment/GI	D/A
40.	Immunosuppressive drug mechanism	GI	GI/GI	A/A

41.	Immunosuppressive drug mechanism	GI	Treatment/GI	A/A
42.	Case presentation/DD of patient symptoms	DD	DD/Diagnosis	A/A
43.	Case presentation/Diagnostic findings of disease	Diagnosis	GI/GI	A/A
44.	Case presentation/Investigation of patient symptoms	Diagnosis	Diagnosis/Treatment	A/A
45.	Intraoperative therapeutic options	Treatment	Treatment/Treatment	A/A
46.	Indications of transplant nephrectomy	GI	DD/Treatment	D/A
47.	Immunosuppression medication after transplantation	Treatment	Treatment/Treatment	A/A
48.	Immunosuppression medication during rejection	Treatment	Treatment/Treatment	A/A
49.	Risk of disease relapse	Prognosis	Prognosis/Prognosis	D/D
50.	Risk of disease relapse	Prognosis	Treatment/Treatment	A/A
51.	Immunosuppression medication after graft loss	Treatment	Treatment/Treatment	A/A
52.	Case presentation/DD of graft failure	DD	Diagnosis/Diagnosis	D/A
53.	Case presentation/Treatment following graft failure	Treatment	Treatment/Treatment	D/D
54.	Case presentation/Risk of complication	Prognosis	GI/Prognosis	A/A
55.	Case presentation/Next step in treatment	Treatment	Treatment/Treatment	A/A
56.	Sides of anastomoses	GI	Treatment/Treatment	A/A
57.	Case presentation/DD of patient symptoms	DD	DD/Treatment	A/A
58.	Case presentation/Criteria for recipient selection	GI	GI/Treatment	A/A
59.	Case presentation/Treatment options	Treatment	Treatment/Treatment	A/A
60.	Case presentation/Treatment options	Treatment	Treatment/Treatment	D/D
61.	Case presentation/Factors affecting graft function	Prognosis	Prognosis/Prognosis	A/D
62.	Case presentation/Treatment options	Treatment	Treatment/Treatment	D/A
63.	Case presentation/Further diagnostic tests	Diagnosis	Diagnosis/Diagnosis	A/A
64.	Anatomic variations of graft vessels	GI	GI/GI	A/A
65.	Most common complication of anastomosis	GI	GI/Treatment	A/A
66.	Case presentation/Next step in treatment	Treatment	Prognosis/Diagnosis	A/A
67.	Case presentation/Next step in treatment	Treatment	DD/Diagnosis	D/A
68.	Obesity and transplantation	GI	Diagnosis/GI	A/A
69.	Case presentation/Counsel for potential complication	Prognosis	Diagnosis/GI	A/A
70.	Case presentation/Preoperative diagnostic checks	Diagnosis	DD/Diagnosis	A/A
71.	Case presentation/DD of patient symptoms	DD	DD/Diagnosis	A/A
72.	Case presentation/DD of patient symptoms	DD	DD/DD	D/A
73.	Case presentation/DD of patient symptoms	DD	DD/DD	A/D
74.	Case presentation/Symptoms of a given disease	Diagnosis	Diagnosis/Diagnosis	A/A
75.	Case presentation/DD of patient symptoms	DD	Diagnosis/DD	A/A
76.	Case presentation/Next step in treatment	Treatment	Treatment/Treatment	A/D
77.	Case presentation/DD of patient symptoms	DD	Diagnosis/Diagnosis	A/A
78.	Case presentation/DD of patient symptoms	DD	DD/Diagnosis	A/A
79.	Case presentation/Treatment options	Treatment	Treatment/Treatment	A/A

80.	Case presentation/Next step in treatment	Treatment	Treatment/Treatment	A/A
81.	Case presentation/DD of patient symptoms	DD	Diagnosis/Diagnosis	A/A
82.	Case presentation/Treatment options	Treatment	Treatment/Treatment	D/A
83.	Case presentation/DD of patient symptoms	DD	Diagnosis/Diagnosis	A/D
84.	Case presentation/Treatment options	Treatment	Treatment/Treatment	D/A
85.	Case presentation/ Appropriate diagnostic test	Diagnosis	Diagnosis/Diagnosis	D/A
86.	Case presentation/Treatment options	Treatment	Treatment/Treatment	A/A
87.	Case presentation/ Appropriate diagnostic test	Diagnosis	Diagnosis/Diagnosis	A/A
88.	Case presentation/Treatment options	Treatment	Diagnosis/Treatment	A/A
89.	Case presentation/DD of patient symptoms	DD	DD/DD	A/A
90.	Case presentation/Treatment options	Treatment	Treatment/Treatment	D/D
91.	Case presentation/DD of patient symptoms	DD	DD/Diagnosis	D/D
92.	Case presentation/Treatment options	Treatment	Treatment/Treatment	A/A
93.	Case presentation/DD of patient symptoms	DD	Diagnosis/Diagnosis	A/A
94.	Case presentation/Immunosuppressive management	Treatment	Treatment/Treatment	A/A
95.	Case presentation/DD of patient symptoms	DD	Diagnosis/Diagnosis	A/D
96.	Case presentation/Family of certain virus	GI	Diagnosis/Diagnosis	A/A
97.	Case presentation/DD of patient symptoms	DD	DD/Diagnosis	A/A
98.	Case presentation/Risk factors of given complication	Prognosis	GI/Diagnosis	A/A
99.	Case presentation/Next step in treatment	Treatment	Diagnosis/Treatment	A/A
100.	Case presentation/Next step in treatment	Treatment	Treatment/Treatment	D/A
101.	Case presentation/DD of patient symptoms	DD	Diagnosis/Diagnosis	A/A
102.	Case presentation/DD of patient symptoms	DD	Diagnosis/Diagnosis	A/A
103.	CMV donor/recipient status and risk of infection	Prognosis	GI/Diagnosis	A/A
104.	Case presentation/Reasons for specific treatment	Treatment	Treatment/Treatment	A/A
105.	Case presentation/ Appropriate diagnostic test	Diagnosis	DD/Diagnosis	A/A
106.	Certain infection information	GI	Diagnosis/GI	A/A
107.	Risk factors of certain complication	Prognosis	Diagnosis/DD	A/A
108.	Case presentation/DD of patient symptoms	DD	Diagnosis/Diagnosis	D/D

Abbreviations. A: Agreement, CMV: cytomegalovirus, D: disagreement, DD: differential diagnosis, ESKD: end-stage kidney disease, GI: general information, GVHD: graft-versus-host disease

Supplementary Table 2. Performance of ChatGPT and GPT-4 in virtual scenarios regarding liver transplantation

	Question Description	Assigned Label	ChatGPT/GPT-4 Label	ChatGPT/GPT-4 Performance
1.	Contraindication of transplantation	GI	Diagnosis/Treatment	D/D
2.	Indications of transplantation	GI	Diagnosis/Diagnosis	A/A
3.	Treatment of rejection	Treatment	Treatment/Treatment	D/D
4.	Treatment options for variceal hemorrhage	Treatment	Treatment/Treatment	D/D
5.	Statements regarding treatment options	Treatment	Treatment/Treatment	D/A
6.	Indication of certain treatment	Treatment	Treatment/Treatment	D/A

7.	Statements regarding treatment options	Treatment	GI/Treatment	D/D
8.	Statements regarding treatment options	Treatment	Treatment/Treatment	D/A
9.	Indication of certain treatment	Treatment	Treatment/Treatment	D/A
10.	Glomerular filtration rate information	GI	GI/Diagnosis	A/A
11.	Glomerular filtration rate information	GI	GI/Diagnosis	A/A
12.	Symptoms of cirrhosis	Diagnosis	DD/DD	A/A
13.	Treatment options for hepatorenal syndrome	Treatment	Treatment/Treatment	D/D
14.	Criteria of recipients in transplantation	GI	GI/Treatment	D/A
15.	Diagnostic tests for hepatopulmonary syndrome	Diagnosis	Diagnosis/Diagnosis	A/A
16.	Statements regarding treatment options	Treatment	GI/Treatment	D/D
17.	Response to certain treatment	Treatment	GI/Treatment	D/D
18.	Prognostic factors of graft function	Prognosis	Prognosis/Prognosis	D/A
19.	Prognostic factors of graft function	Prognosis	Prognosis/Prognosis	D/A
20.	Statements regarding alcohol-related cirrhosis	GI	GI/Diagnosis	D/A
21.	Definition of transplantation-related term	GI	GI/GI	A/A
22.	Performance of MELD	GI	DD/DD	D/D
23.	Organ allocation criteria	GI	GI/GI	D/D
24.	Prognostic factors of disease relapse	Prognosis	DD/DD	A/A
25.	Prognostic factors of disease relapse	Prognosis	Diagnosis/Diagnosis	D/D
26.	Statements regarding treatment options	Treatment	GI/Treatment	D/D
27.	Pathogenesis of disease	GI	Diagnosis/GI	D/D
28.	Appropriate diagnostic test for NASH	Diagnosis	Diagnosis/Diagnosis	A/A
29.	Indications for transplantation	GI	Diagnosis/Diagnosis	D/A
30.	Diagnostic findings of disease	Diagnosis	Diagnosis/Diagnosis	A/A
31.	Appropriate treatment of a disease	Treatment	Treatment/Treatment	A/A
32.	Diagnostic findings of disease	Diagnosis	DD/Diagnosis	D/D
33.	Diagnostic findings of disease	Diagnosis	Diagnosis/Diagnosis	D/A
34.	Indications for transplantation	GI	Treatment/Treatment	A/A
35.	Indications for transplantation	GI	Treatment/Treatment	D/D
36.	Ways of expanding liver grafts pool	GI	GI/Treatment	A/A
37.	Case presentation/ Next diagnostic test	Diagnosis	Diagnosis/Diagnosis	A/A
38.	Indications for transplantation	GI	Treatment/Treatment	D/D
39.	Treatment options of CCA	Treatment	Diagnosis/Treatment	D/D
40.	Diagnostic findings of disease	Diagnosis	Diagnosis/Diagnosis	A/A
41.	Appropriate imaging modality of disease	Diagnosis	Diagnosis/Diagnosis	D/A
42.	Diagnostic findings of disease	Diagnosis	Diagnosis/Diagnosis	D/D
43.	Immunosuppressive drugs characteristics	Treatment	Treatment/Treatment	A/D
44.	Contraindications for transplantation	GI	Treatment/Diagnosis	D/A
45.	Appropriate use of immunosuppressive drugs	Treatment	Treatment/Treatment	A/A
46.	GI of living-donor liver transplantation	GI	GI/GI	D/D
47.	GI of living-donor liver transplantation	GI	GI/GI	D/D
48.	Risk of disease relapse	Prognosis	DD/Prognosis	D/A
49.	Diagnostic findings of disease	Diagnosis	Diagnosis/Diagnosis	A/A
50.	Diagnostic findings of disease	Diagnosis	Diagnosis/Diagnosis	D/D
51.	Survival of patients on the waiting list	Prognosis	Prognosis/GI	A/A
52.	Novel treatment of disease	Treatment	GI/GI	A/A
53.	Risk factors of mortality of cirrhosis	Prognosis	Diagnosis/GI	D/D
54.	Extended criteria of transplantation	GI	Treatment/GI	D/D
55.	Donor risk index	Prognosis	Prognosis/GI	D/A

56.	Definition of Maastricht category	GI	Diagnosis/GI	D/A
57.	Definition of ischemia time	GI	GI/GI	D/D
58.	Differences in graft survival between diseases	Prognosis	Prognosis/GI	D/D
59.	Host of certain pathogen	GI	Diagnosis/GI	A/A
60.	Factors affecting transmission	GI	DD/GI	D/D
61.	Criteria of organ donors	GI	Prognosis/GI	D/D
62.	Preservation solutions	GI	GI/GI	D/D
63.	Arterial reconstruction during transplantation	GI	Treatment/GI	A/D
64.	Liver function assessment	GI	Prognosis/GI	D/D
65.	Surgical treatment options of certain complication	Treatment	Treatment/GI	D/A
66.	Arterial reconstruction during transplantation	GI	Treatment/GI	D/A
67.	Treatment options of certain complication	Treatment	Treatment/GI	D/A
68.	Domino liver transplantation	GI	GI/GI	D/A
69.	Split-liver transplantation	GI	GI/GI	D/A
70.	Criteria of split-liver donors	GI	GI/Treatment	A/A
71.	Indications for transplantation	GI	DD/Treatment	A/A
72.	Types of liver grafts	GI	GI/GI	A/A
73.	Donor safety	GI	Treatment/Treatment	D/D
74.	Findings during early reperfusion phase	Diagnosis	GI/Diagnosis	D/A
75.	Preoperative assessment	Diagnosis	GI/GI	A/A
76.	Fluid management during transplantation	Treatment	Treatment/Treatment	D/D
77.	Transfusion management during transplantation	Treatment	Treatment/Treatment	A/A
78.	Treatment options to minimize blood loss	Treatment	Treatment/Treatment	D/A
79.	Coagulative status in cirrhosis	GI	Diagnosis/GI	D/D
80.	Postoperative liver function assessment	Diagnosis	Prognosis/Diagnosis	A/D
81.	Diagnostic findings of disease	Diagnosis	Diagnosis/Diagnosis	A/A
82.	Predicting tools of patient survival	Prognosis	Diagnosis/Diagnosis	D/D
83.	Appropriate diagnostic test of disease	Diagnosis	Diagnosis/Diagnosis	D/D
84.	Immunosuppressive treatment options	Treatment	Treatment/Treatment	D/A
85.	FDA drug approval	GI	GI/GI	A/A
86.	Immunosuppressive treatment options	Treatment	Treatment/Treatment	A/A
87.	Surgical treatment options of certain complications	Treatment	Treatment/Treatment	A/D
88.	Appropriate imaging modality of disease	Diagnosis	Diagnosis/Diagnosis	A/A
89.	Diagnostic findings of disease	Diagnosis	Diagnosis/Diagnosis	D/A
90.	Risk of persistent biliary complication	Prognosis	Treatment/Diagnosis	A/A
91.	Treatment options of certain complication	Treatment	Treatment/Treatment	D/D
92.	Treatment options of certain complication	Treatment	GI/Diagnosis	D/D
93.	Diagnostic findings of disease	Diagnosis	GI/Diagnosis	A/A
94.	Diagnostic findings of disease	Diagnosis	Diagnosis/Diagnosis	A/A
95.	Diagnostic findings of disease	Diagnosis	GI/Diagnosis	D/D
96.	Diagnostic findings of disease	Diagnosis	Diagnosis/Diagnosis	D/D
97.	Risk factors of hypertension development	Prognosis	Prognosis/Diagnosis	D/D
98.	Immunosuppressive drug interactions	Treatment	GI/Treatment	D/A
99.	Risk factors of fibrosis development	Prognosis	Diagnosis/Prognosis	D/A
100.	Risk of disease relapse	Prognosis	Diagnosis/Treatment	D/A
101.	Treatment options of HBV-related cirrhosis	Treatment	Treatment/Treatment	D/A
102.	Risk of disease relapse	Prognosis	Diagnosis/GI	D/A
103.	Diagnostic findings of disease	Diagnosis	Prognosis/Diagnosis	D/D

104	Liver transplantation as treatment in disease	Treatment	Treatment/Treatment	D/D
105	Treatment options for post-transplantation infection	Treatment	Diagnosis/Diagnosis	A/A
106	Appropriate treatment for certain infection	Treatment	Treatment/Treatment	D/D
107	Appropriate investigation of certain disease	Diagnosis	Diagnosis/Diagnosis	A/A
108	Risk of post-transplant cancer development	Prognosis	Prognosis/Prognosis	D/A
109	Treatment of immunosuppressive drug complication	Treatment	Treatment/Treatment	D/D
110	Incidence of immunosuppressive drug side effects	Treatment	GI/GI	D/A
111	Risk factors for post-transplant malignancy	Prognosis	Prognosis/GI	A/A
112	Treatment of post -transplant lymphoproliferative disorder	Treatment	Treatment/Treatment	A/A
113	Risk factor for post -transplant malignancy	Prognosis	Prognosis/Prognosis	A/A
114	Immunosuppressive treatment options during pregnancy	Treatment	Treatment/Treatment	A/A
115	Correctness of statements regarding transplantation	GI	GI/GI	D/A
116	Immunosuppressive treatment options during pregnancy	Treatment	GI/GI	D/D
117	Prognostic factors of graft loss	Prognosis	GI/Prognosis	D/A
118	Diagnostic findings of disease	Diagnosis	Diagnosis/Diagnosis	D/A
119	Preoperative assessment	Diagnosis	Diagnosis/Diagnosis	D/A
120	Effects of MELD implementation	GI	GI/GI	D/A
121	Contraindications for transplantation	GI	DD/Treatment	A/A
122	Case presentation/Next diagnostic test	Diagnosis	Diagnosis/Diagnosis	A/A
123	Prognostic factors of acute liver failure	Prognosis	Prognosis/Prognosis	D/A
124	Case presentation/Next step in management	Treatment	Diagnosis/Treatment	D/D
125	Mechanism of action of tacrolimus	GI	GI/GI	A/A
126	Case presentation/Next step in management	Treatment	Diagnosis/Diagnosis	A/A
127	Risk factor for post -transplant malignancy	Prognosis	GI/Prognosis	A/A
128	Case presentation/DD of patient symptoms	DD	DD/DD	A/A
129	Case presentation/Next step in management	Treatment	Diagnosis/Treatment	D/A
130	Case presentation/Next step in management	Treatment	Treatment/Treatment	A/A
131	Case presentation/Treatment options	Treatment	Treatment/Treatment	A/A
132	Cytokines associated with allograft tolerance	GI	GI/GI	A/A
133	Case presentation/Next step in management	Treatment	Treatment/Treatment	D/A
134	Diagnostic findings of hepatorenal syndrome	Diagnosis	GI/Diagnosis	A/A
135	Diagnostic findings of portal hypertension	Diagnosis	GI/Diagnosis	D/D
136	Factors associated with post-liver transplant renal disease	Prognosis	GI/Prognosis	D/D
137	Case presentation/Factors associated with survival	Prognosis	DD/Diagnosis	D/D
138	Case presentation/Next step in management	Treatment	Treatment/Treatment	D/D
139	Case presentation/Immunosuppressive management	Treatment	Treatment/Treatment	A/A
140	Case presentation/Treatment options	Treatment	Treatment/Treatment	A/A
141	Case presentation/DD of patient symptoms	DD	Diagnosis/Diagnosis	A/A
142	MELD features	GI	GI/GI	D/D
143	Case presentation/Next step in management	Treatment	Treatment/Treatment	D/D

144	Case presentation/Next step in management	Treatment	Treatment/Treatment	A/A
145	Case presentation/Next step in management	Treatment	Diagnosis/Diagnosis	D/A
146	Case presentation/Treatment options	Treatment	Treatment/Treatment	D/A
147	Case presentation/Treatment options	Treatment	Treatment/Treatment	A/D
148	Case presentation/Treatment options	Treatment	Treatment/Treatment	A/A
149	Risks associated with immunosuppressive drug use	Prognosis	Prognosis/Prognosis	A/A
150	Case presentation/Next step in management	Treatment	Treatment/Treatment	D/D
151	Diagnostic findings of disease	Diagnosis	Diagnosis/Diagnosis	A/A
152	Diagnostic findings of disease	Diagnosis	Diagnosis/Diagnosis	D/D
153	Risks associated with use of marginal grafts	Prognosis	Prognosis/Prognosis	D/A
154	Case presentation/Treatment options	Treatment	Treatment/Treatment	D/A
155	Risk of developing biliary complications	Prognosis	Prognosis/Prognosis	A/A
156	MELD features	GI	Prognosis/Treatment	D/A
157	MELD features	GI	Diagnosis/Diagnosis	D/D
158	Eligibility criteria of transplantation	GI	GI/GI	D/A
159	Living donor factors associated with graft survival	Prognosis	Prognosis/Prognosis	A/D
160	Case presentation/Immunosuppressive drug side effects	Treatment	Diagnosis/DD	A/D
161	Predictive factors of survival	Prognosis	Diagnosis/Diagnosis	A/A
162	Diagnostic findings of disease	Diagnosis	GI/Diagnosis	A/A
163	Relation between MELD score and waiting timing	Prognosis	GI/Prognosis	D/A
164	Aetiology of cirrhosis in children	GI	Diagnosis/Prognosis	A/A
165	MELD features	GI	GI/GI	D/D
166	Contraindications for transplantation	GI	Treatment/Treatment	D/A
167	Statements regarding graft survival	Prognosis	GI/GI	D/D
168	Child-Pugh score features	GI	Diagnosis/Diagnosis	D/A
169	Criteria of donor eligibility	GI	DD/GI	D/D
170	Incidence of complication following transplantation	Prognosis	Treatment/Prognosis	A/A
171	Factors affecting liver graft survival	Prognosis	GI/Prognosis	D/A
172	Factors affecting liver graft survival	Prognosis	Prognosis/Treatment	D/A
173	Surgical outcome statements	Prognosis	Prognosis/Treatment	D/A
174	Incidence of graft loss	Prognosis	Prognosis/Prognosis	D/D
175	Performing choledochojejunostomy during transplantation	Treatment	DD/Treatment	A/A
176	Case presentation/Next diagnostic test	Diagnosis	DD/Diagnosis	D/A
177	Immunosuppressive drug side effects	Treatment	Diagnosis/Diagnosis	D/D
178	Diagnostic findings of disease	Diagnosis	Diagnosis/Diagnosis	D/A
179	Risks factors associated with chronic rejection	Prognosis	Prognosis/Prognosis	A/D
180	Statements regarding patient survival	Prognosis	GI/Prognosis	D/D
181	Milan criteria	GI	Diagnosis/Diagnosis	D/D
182	Risk factors of complication following transplantation	Prognosis	GI/Diagnosis	D/A
183	Risk factors of complication following transplantation	Prognosis	Prognosis/Prognosis	A/A
184	Risk factors of complication following transplantation	Prognosis	Prognosis/DD	D/A

185	Risk factors of complication following transplantation	Prognosis	Prognosis/Diagnosis	A/A
186	Case presentation/Treatment options	Treatment	Treatment/Treatment	A/A

Abbreviations. **A:** agreement, **CCA:** cholangiocarcinoma, **D:** disagreement, **DD:** differential diagnosis, **FDA:** food and drug administration, **GI:** general information, **HBV:** hepatitis B infection, **MELD:** model for end-stage disease, **NASH:** non-alcoholic steatohepatitis

Supplementary Table 3. Performance comparison of chatGPT vs GPT-4 when factoring for specific tasks in published case reports

Type of Task	Overall chatGPT agreement level	Overall GPT-4 agreement level	chatGPT Renal Transplantation agreement level	GPT-4 renal transplantation agreement level	chatGPT liver Transplantation agreement level	GPT-4 liver transplantation agreement level
DD that includes final diagnosis	A: 11/18 (61.1%) PA: 1/18 (5.6%)	A: 16/18 (88.9%) PA: 1/18 (5.6%)	A: 6/9 (66.7%) PA: 1/9 (11.1%)	A: 8/9 (88.9%) PA: 1/9 (11.1%)	A: 5/9 (55.6%) PA: 0/9 (0%)	A: 8/9 (88.9%) PA: 0/9 (0%)
Final diagnosis prediction	A: 6/18 (33.3%) PA: 1/18 (5.6%)	A: 14/18 (77.8%) PA: 1/18 (5.6%)	A: 5/9 (55.6%) PA: 0/9 (0%)	A: 8/9 (88.9%) PA: 0/9 (0%)	A: 1/9 (11.1%) PA: 1/9 (11.1%)	A: 6/9 (66.7%) PA: 1/9 (11.1%)
Appropriate next diagnostic test	A: 5/10 (50%) PA: 3/10 (30%)	A: 8/10 (80%) PA: 1/10 (10%)	A: 3/7 (42.9%) PA: 3/7 (42.9%)	A: 6/7 (85.7%) PA: 1/7 (14.3%)	A: 2/3 (66.7%) PA: 0/3 (0%)	A: 2/3 (66.7%) PA: 0/3 (0%)

Appropriate treatment	A: 9/15 (60%) PA: 6/15 (40%)	A: 11/15 (73.3%) PA: 3/15 (20%)	A: 4/4 (100%) PA: 0/4 (0%)	A: 4/4 (100%) PA: 0/4 (0%)	A: 5/11 (45.5%) PA: 6/11 (55.5%)	A: 7/11 (63.6%) PA: 3/11 (27.3%)
Prediction of prognosis	A: 1/2 (50%) PA: 0/2 (0%)	A: 2/2 (100%) PA: 0/2 (0%)	A: 0/0 (0%) PA: 0/0 (0%)	A: 0/0 (%) PA: 0/0 (%)	A: 1/2 (50%) PA: 0/2 (0%)	A: 2/2 (100%) PA: 0/2 (%)

Abbreviations. DD: differential diagnosis, PA: partial agreement

Supplementary Table 4. Unpublished department cases on liver transplantation

Case ID	Case Summary
1	We present the case of a 51-year-old male, renal transplant patient, admitted with refractory ascites. The patient has a history of autosomal dominant polycystic kidney disease (ADPKD), which led to chronic kidney disease (CKD) requiring hemodialysis for the past 10 years. Six months prior, he underwent a left nephrectomy as part of his management for ADPKD. On evaluation, an abdominal computed tomography (CT) scan revealed multiple liver cysts. Initial investigations raised suspicion of malignancy due to elevated tumor markers, including CA125 at 151.1 IU/ml and CA19.9 at 39.9 IU/ml. Notably, the patient resides on an island with a significant population of immigrants from the Middle East.
2	A 46-year-old woman was admitted for a deceased donor kidney transplantation. Regarding her end stage kidney disease, it was secondary to FSGS. The patient was on dialysis via a left subclavian line. Also, she was on peritoneal dialysis from 2020 to 2023. The patient had a history of anaemia and was on epoetin and iron supplements. The patient had hyperparathyroidism secondary to end stage renal disease. Also, she had an aneurysm over the anterior cerebral artery measuring 1.5 millimetres. The patient had hidradenitis suppurativa. The rest of your medical history includes a thrombosed infected tunnelled line anxiety and depression and a history of subsegmental pulmonary embolism. Regarding her previous surgical history the patient had an insertion and removal of PD catheter and laparoscopic excision of the right ovarian cyst. Her preoperative iliac vessel ultrasound had unremarkable findings. The patient had an uncomplicated renal transplantation from a deceased donor and was discharged on day 6 post operatively. On day 10 at her home the patient had an episode of chest pain radiating to the left arm shortness of breath and palpitations that lasted for 10 minutes. Here urine output remained stable.
3	A 33-year-old woman is admitted as a candidate for a deceased donor renal transplantation. The patient had in stage renal disease due to malignant hypertension. From her past medical history, the patient suffered from hypercholesterolaemia, chronic mild thrombocytopenic

	disorder with baseline platelets around 120 to 140,000. Also, she had priorly mild left ventricular systolic dysfunction that has improved. Here preoperative iliac vessel ultrasound had unremarkable findings. The patient underwent a renal transplantation with renal single vessels being anastomosed to the external iliac vessels.
4	A 36-year-old male was admitted as a candidate for a deceased donor renal transplantation. The patient had end stage renal disease due to IGA nephropathy, was on peritoneal dialysis between 2013 and 2015 when he had a failed renal transplantation with a graft nephrectomy on day 5 due to renal vein thrombosis. The pre transplant anticoagulation plan you too possible antiphospholipid syndrome was initially unfractionated heparin followed by warfarin treatment for three months. The renal transplant was of high immunological risk in the context of light delisting with Campath induction. During benching an equally sized 2nd renal vein was ligated. Two renal arteries were anastomosed separately to the external iliac artery and one smaller lower artery was spatulated. The perfusion was initially good but was sub optimal 20 minutes following perfusion. An intraoperative Doppler was conducted showing good perfusion with no congestion. A post operative transplant ultrasound was performed that had the following findings: the kidney's upper pole could not be visualised. The rest of the kidney demonstrated satisfactory vascularity. The main renal artery and the main renal vein were not confidently identified. Downstream renal artery and renal vein had normal spectral waveforms. The patient had a delayed graft function with minimal urine output and required a hemodialysis session. No heparin was prescribed or administered at this point. Overnight the patient complaint of pain at the graft side and catheter pain. The patient's lactate was up-trending.
5	A 16-year-old male patient was admitted for a deceased donor kidney transplantation due to end-stage renal failure secondary to nephrotic syndrome. He had been on hemodialysis for one year, followed by four years of peritoneal dialysis, with no residual urine output. His medical history included four episodes of peritonitis, hypertension, and PRES (posterior reversible encephalopathy syndrome), from which he had fully recovered. The ureterovesical anastomosis was performed using the Taguchi technique. Post-transplantation, the patient initially produced 60–70 mL of urine per hour. However, extensive macroscopic hematuria was observed. By the morning of the first postoperative day, it was noted that the patient had no urine output for several hours.

Supplementary Table 5. Unpublished department cases on liver transplantation

Case ID	Case Summary
1	A 56-year-old male with a history of alcohol-related cirrhosis underwent a liver transplantation. Following the procedure, the patient was transferred to the intensive care unit, where he remained stable and was moved to the surgical ward after 24 hours. His immediate postoperative course was uneventful, and he was discharged home on postoperative day seven with a surgical drain in situ for ongoing fluid management. Eight days after discharge, the patient presented to the hospital with acute right-sided abdominal pain. On clinical evaluation, he was noted to have an elevated white blood cell count and a significantly raised C-reactive protein ,

2	A 43-year-old male with a history of cirrhosis secondary to Wilson's disease is being evaluated as a potential candidate for liver transplantation. The patient's medical history is notable for multiple hospitalizations due to variceal and upper gastrointestinal bleeding. At the time of assessment, the patient demonstrates stage 2 hepatic encephalopathy and severe ascites, with notable swelling of the lower extremities. Laboratory and renal function parameters reveal the following: glomerular filtration rate (GFR) of 72 mL/min, normalized GFR (NGFR) of 57 mL/min, serum sodium of 124 mEq/L, international normalized ratio (INR) of 2.9, albumin level of 2.9 g/dL, creatinine level of 1.39 mg/dL, and total bilirubin of 29 mg/dL.
3	A 49-year-old woman with end-stage renal disease secondary to autosomal dominant polycystic kidney disease underwent a deceased donor renal transplantation. Her pretransplant blood type was A Rh(D) positive. The patient's medical history was significant for hemodialysis dependence for six years, hypertension, right radical nephrectomy, type 2 diabetes mellitus controlled with oral hypoglycemics, a history of viral meningoencephalitis, recurrent urinary tract infections, inguinal hernia repair, and three previous pregnancies. The organ donor was A Rh(D) negative and had been previously alloimmunized, as evidenced by the presence of anti-D antibodies detected in a pre-mortem blood sample. The transplant surgery was uneventful, and no blood products were administered intraoperatively. Postoperatively, the patient was initiated on immunosuppressive therapy, including mycophenolate mofetil, tacrolimus, and prednisone. Her early postoperative course was complicated by delayed graft function, necessitating the use of antithymocyte globulin (five daily doses) and intermittent hemodialysis. Prior to the transplantation, the patient's hemoglobin was 109 g/L. It remained stable until postoperative day (POD) 5, when it inexplicably decreased to 71 g/L. By POD 11, the hemoglobin further dropped to 55 g/L, despite the absence of overt bleeding or hemodynamic instability. Following transfusion of 1 unit of red blood cells (RBCs), her hemoglobin continued to decline, reaching 41 g/L by POD 12. Cross-sectional imaging, including computed tomography of the abdomen and pelvis and renal ultrasound, did not reveal evidence of active bleeding, hematoma, or other causes for the anemia.
4	A 51-year-old female with a history of decompensated cirrhosis, arterial hypertension, and Alport syndrome underwent liver transplantation. Her immediate postoperative course was uneventful until the seventh postoperative day, approximately 96 hours after initiating tacrolimus as part of her immunosuppressive regimen. At that time, the patient experienced episodes of clonus in the right upper limb, suggestive of self-limited focal seizures. During these episodes, her blood pressure was recorded at 170/95 mmHg. No additional neurological symptoms were reported.
5	A 63-year-old male presented to the transplant department with fever, persistent diarrhea, and vomiting occurring four months after undergoing liver transplantation for cirrhosis secondary to nonalcoholic fatty liver disease (NASH). The deceased donor was ABO-identical with the recipient and homozygous at the HLA-A, DR, and DQB/DQA loci (A24, A24; B35, B44; DR11, DR11; DQ7, DQ7; DQA5, DQA5). Post-transplant immunosuppressive therapy included tacrolimus and mycophenolate mofetil. On admission, the patient's vital signs were stable. Clinical examination revealed decreased bowel sounds and an extensive maculopapular rash on the back. Laboratory investigations showed normal liver function, an elevated C-reactive protein (CRP) suggestive of an inflammatory process, and significant hematological abnormalities, including leukopenia with a white blood cell

	count of 1.6 K/ μ L (lymphocytes 16.6%), anemia with hemoglobin at 8.9 g/dL, and thrombocytopenia with a platelet count of 95 K/ μ L.
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Supplementary Table 6. Performance comparison of chatGPT vs GPT-4 when factoring for specific tasks in unpublished department cases

Type of Task	Overall chatGPT agreement level	Overall GPT-4 agreement level	chatGPT Renal Transplantation agreement level	GPT-4 renal transplantation agreement level	chatGPT liver Transplantation agreement level	GPT-4 liver transplantation agreement level
DD that includes final diagnosis	A: 11/12 (91.7%) PA: 0/12 (0%)	A: 11/12 (91.7%) PA: 0/12 (0%)	A: 7/7 (100%) PA: 0/7 (0%)	A: 7/7 (100%) PA: 0/7 (0%)	A: 4/5 (80%) PA: 0/5 (0%)	A: 4/5 (80%) PA: 0/5 (0%)
Final diagnosis prediction	A: 5/13 (38.5%) PA: 1/13 (7.7%)	A: 6/13 (46.2%) PA: 1/13 (7.7%)	A: 2/8 (25%) PA: 1/8 (12.5%)	A: 5/8 (62.5%) PA: 1/8 (12.5%)	A: 3/5 (60%) PA: 0/5 (0%)	A: 1/5 (20%) PA: 0/5 (0%)

Appropriate next diagnostic test	A: 3/9 (33.3%) PA: 5/9 (55.6%)	A: 7/9 (77.8%) PA: 1/9 (11.1%)	A: 3/6 (50%) PA: 2/6 (33.3%)	A: 5/6 (83.3%) PA: 0/6 (0%)	A: 0/3 (0%) PA: 0/3 (100%)	A: 2/3 (66.7%) PA: 1/3 (33.3%)
Appropriate treatment	A: 2/6 (33.3%) PA: 3/6 (50%)	A: 4/6 (66.7%) PA: 1/6 (16.7%)	A: 1/4 (25%) PA: 2/4 (50%)	A: 3/4 (75%) PA: 1/4 (25%)	A: 5/11 (45.5%) PA: 6/11 (55.5%)	A: 1/2 (50%) PA: 0/2 (0%)
Prediction of prognosis	A: 2/3 (66.7%) PA: 1/3 (33.3%)	A: 3/3 (100%) PA: 0/3 (0%)	A: 1/1 (100%) PA: 0/0 (0%)	A: 1/1 (100%) PA: 0/0 (0%)	A: 1/2 (50%) PA: 1/2 (50%)	A: 2/2 (100%) PA: 0/2 (%)

Abbreviations. DD: differential diagnosis, PA: partial agreement