1 PATIENT INFORMATION

NAME
Desmond A. Achebe

DATE OF SERVICE
May 19, 2026

DOB
08/30/1973 (52 yrs)

PROVIDER
Rebecca Lindqvist, MD

AGE / SEX
52 / Male

CREDENTIALS
MD, Transplant Nephrology

MRN / PATIENT ID
TXP-183460

VISIT TYPE
Transplant Nephrology Follow-Up — unscheduled, for rising creatinine

TRANSPLANT CENTER
Northgate University Transplant Institute

PRIMARY NEPHROLOGIST
Dr. Owen Bradshaw (community nephrology)

PRIMARY CARE PROVIDER
Dr. Naomi Feldstein, Internal Medicine

CC CHIEF COMPLAINT

"They called and said my kidney numbers are up again." Presents for evaluation of a rising serum creatinine detected on routine surveillance labs 14 months after deceased-donor kidney transplantation.

S SUBJECTIVE

3a TRANSPLANT HISTORY

Deceased-donor kidney transplant on March 8, 2025 — 14 months ago. Standard criteria donor, KDPI 42%, cold ischemia time 16 hours, 3 of 6 HLA mismatches, CMV donor-positive/recipient-negative (high-risk serostatus), EBV donor-positive/recipient-positive. Right iliac fossa allograft. Induction with basiliximab given his low immunologic risk (PRA 0%, no prior transplant, no transfusions). Cause of ESRD was autosomal dominant polycystic kidney disease, with native kidneys left in situ. He was on in-center hemodialysis for 26 months pre-transplant via a right brachiocephalic fistula, which remains patent but unused. No delayed graft function — the graft produced urine immediately with creatinine nadir of 1.2 mg/dL at week 6. No rejection episodes to date.

3b REASON FOR CURRENT VISIT

Rising creatinine on surveillance labs: 1.3 mg/dL at month 9, 1.6 at month 12, and now 2.1 mg/dL. He is asymptomatic and would not have known without the lab call. This 62% rise from his established baseline requires urgent differentiation between BK virus nephropathy, acute rejection, calcineurin inhibitor toxicity, and recurrent or de novo glomerular disease — several of which have opposing treatment implications.

3c GRAFT FUNCTION / URINARY SYMPTOMS

Urine output subjectively unchanged and good. Denies dysuria, hematuria, foamy urine, frequency, urgency, retention, or change in urine color. No graft-site pain or tenderness. No flank pain over the native polycystic kidneys, which have historically caused intermittent discomfort.

3d IMMUNOSUPPRESSION ADHERENCE

Current regimen: tacrolimus 4 mg twice daily, mycophenolate mofetil 1,000 mg twice daily, and prednisone 5 mg daily. On direct and non-judgmental questioning, he disclosed missing his evening tacrolimus dose roughly twice weekly over the past several months, particularly on days he works late as a regional truck dispatcher. He also acknowledged a two-week period in February when a pharmacy prior-authorization lapse left him rationing mycophenolate to once daily. He has not reported either issue previously. Trough draws have been inconsistently timed — several drawn 2–3 hours after his morning dose rather than as a true trough, making prior levels difficult to interpret.

3e INFECTION SYMPTOMS

Denies fever, chills, cough, dyspnea, dysuria, diarrhea, abdominal pain, oral ulcers, or new skin lesions. No sick contacts and no recent antimicrobials. Completed 6 months of valganciclovir CMV prophylaxis (appropriate for D+/R− status) ending September 2025, with no CMV disease since. Trimethoprim-sulfamethoxazole prophylaxis completed at 6 months. No hospitalizations since transplant.

3f REJECTION / GRAFT DYSFUNCTION SYMPTOMS

No graft tenderness, decreased urine output, new edema, weight gain, malaise, or fever — notably, the classic rejection syndrome is absent, which is typical of modern subclinical rejection and does not exclude it.

3g MEDICATION SIDE EFFECTS / TOXICITY

Reports a fine hand tremor that has worsened over the past 3 months, interfering with handwriting — consistent with calcineurin inhibitor effect. Intermittent loose stools 2–3 times weekly, likely mycophenolate-related. No gingival hyperplasia or hair changes. No leukopenia reported to him. New hyperglycemia as below.

3h BLOOD PRESSURE AND METABOLIC HISTORY

Home blood pressures running 140–150/85–92 mmHg, up from 125–135 systolic six months ago. Adherent to amlodipine and labetalol. Developed post-transplant diabetes mellitus at month 5, currently on metformin 1,000 mg twice daily with a most recent A1c of 7.6%, up from 7.0%. Weight up 18 lb since transplant. On atorvastatin for dyslipidemia. Former smoker, quit 2019, 15 pack-years.

3i FLUID / VOLUME STATUS SYMPTOMS

No edema, dyspnea, or orthopnea. Denies dizziness or reduced oral intake. Fluid intake approximately 2.5 L daily, consistent with post-transplant counseling.

3j CANCER / DERMATOLOGIC SURVEILLANCE

Overdue for annual dermatology screening — last seen pre-transplant. Reports a new scaly, non-healing lesion on the left forearm present about 3 months, which he had not thought to mention. Significant lifetime sun exposure from years of outdoor work. No prior malignancy. Colonoscopy current; PSA discussed with primary care.

3k PRE-TRANSPLANT EVALUATION, IF APPLICABLE

Not applicable — patient is post-transplant. Historical pre-transplant workup was unremarkable, with PRA 0% and no sensitizing events.

3l PRIOR EVALUATION AND TREATMENT

Transplant clinic notes reviewed from months 1 through 12. No prior allograft biopsy. Last DSA screen at month 12 was negative. Surveillance BK PCR at month 6 was undetectable; month 12 showed low-level viremia at 1,400 copies/mL that was noted but not acted upon in the record. Transplant renal ultrasound at month 6 was normal. No prior rejection treatment or hospitalizations.

3m PERTINENT NEGATIVES

Denies fever, graft pain, reduced urine output, severe edema, chest pain, dyspnea, confusion, severe diarrhea or vomiting, or symptoms of opportunistic infection. No hematuria, no recent contrast exposure, and no NSAID use — he was counseled on NSAID avoidance at discharge and reports strict adherence.

ROS TRANSPLANT NEPHROLOGY REVIEW OF SYSTEMS

CONSTITUTIONAL
Denies fever, chills, night sweats, or malaise; reports 18 lb weight gain since transplant

GENITOURINARY / GRAFT
Denies dysuria, hematuria, foamy urine, reduced output, graft tenderness, or frequency

CARDIOPULMONARY
Denies edema, dyspnea, orthopnea, chest pain, palpitations, or dizziness; home BP elevated

GASTROINTESTINAL
Positive for intermittent loose stools 2–3× weekly; denies nausea, vomiting, or abdominal pain

NEUROLOGIC
Positive for worsening fine hand tremor; denies headache, neuropathy, or confusion

INFECTIOUS / DERMATOLOGIC
Positive for a new non-healing scaly forearm lesion; denies cough, oral ulcers, or wound changes

ADHERENCE
Positive — approximately twice-weekly missed evening tacrolimus and a 2-week mycophenolate rationing period

O OBJECTIVE

5a VITALS

TEMPERATURE
98.1 °F

OXYGEN SATURATION
98% on room air

BLOOD PRESSURE
148/90 mmHg (repeat 146/88)

WEIGHT
214 lb

HEART RATE
76 bpm, regular

BMI
30.1

RESPIRATORY RATE
14 / min

ORTHOSTATIC VITALS
Not obtained — asymptomatic

5b EXAMINATION

GENERAL APPEARANCE

Well-appearing, comfortable, euvolemic; well nourished; alert and fully oriented; no cushingoid features

CARDIOVASCULAR

Regular rate and rhythm; no murmur; JVP not elevated; no peripheral edema; pulses intact

PULMONARY

Clear to auscultation bilaterally; no crackles or wheezes; normal work of breathing

ABDOMEN / ALLOGRAFT EXAMINATION

Right iliac fossa allograft non-tender, no bruit appreciated, no overlying swelling or fluctuance; well-healed Gibson incision without erythema or drainage; bilateral enlarged native polycystic kidneys palpable and non-tender; no hernia; no suprapubic fullness

GENITOURINARY

Not formally examined; no catheter; no retention symptoms

EXTREMITIES

No edema; right brachiocephalic AV fistula patent with thrill and bruit present, unused since transplant; no wounds

SKIN

A 1.2 cm erythematous, scaly, non-healing plaque on the left dorsal forearm with a keratotic surface — concerning for squamous cell carcinoma; scattered actinic keratoses on both forearms; no rash or ulcers elsewhere

NEUROLOGIC

Alert and oriented ×3; fine symmetric postural tremor of both hands, more pronounced than documented at month 6; no asterixis; strength and sensation intact

TA TRANSPLANT / DIALYSIS ACCESS EXAMINATION, IF APPLICABLE

TRANSPLANT INCISION/SCAR APPEARANCE

Well-healed right Gibson incision; no erythema, dehiscence, or drainage

ALLOGRAFT TENDERNESS OR BRUIT

Non-tender; no bruit appreciated over the allograft

WOUND DRAINAGE, ERYTHEMA, DEHISCENCE, OR INFECTION SIGNS

None

URETERAL STENT STATUS, IF APPLICABLE

Not applicable — stent removed at week 4 post-transplant

DRAIN STATUS, IF PRESENT

None

AV FISTULA/GRAFT STATUS IF DIALYSIS ACCESS REMAINS PRESENT

Right brachiocephalic fistula patent with thrill and bruit; unused since transplant; preserved intentionally

CATHETER STATUS IF DIALYSIS ACCESS REMAINS PRESENT

No catheter present

L LABORATORY AND DIAGNOSTIC RESULTS

Graft Function:

Creatinine 2.1 mg/dL today; eGFR 36 mL/min/1.73m². Trend: nadir 1.2 at week 6, 1.3 at month 9, 1.6 at month 12, 2.1 today — a sustained upward trajectory rather than an isolated spike. BUN 32 mg/dL. Cystatin C not obtained.

Immunosuppression Monitoring:

Tacrolimus trough today 3.1 ng/mL (properly timed, 12 hours post-dose) — below the target range of 5–7 for this stage. Review of prior levels shows marked variability: 9.4, 4.2, 8.8, 3.6, and 6.1 over the past 6 months, with a high coefficient of variation. Several prior draws were improperly timed. Mycophenolate levels not routinely measured. This variability pattern is itself an independent risk factor for de novo DSA and rejection.

Electrolytes / Acid-Base:

Sodium 139, potassium 4.8, chloride 108, bicarbonate 21, calcium 9.2, phosphorus 3.4, magnesium 1.5 mg/dL (low — characteristic of calcineurin inhibitor-induced renal magnesium wasting). Anion gap 10.

Urine Studies:

Urinalysis: 1+ protein, no blood, no leukocyte esterase or nitrites. Microscopy shows occasional renal tubular epithelial cells; decoy cells reported — a finding highly suggestive of BK reactivation. Urine protein/creatinine ratio 0.6 g/g (up from 0.2 at month 12). Urine culture negative. Urine BK PCR markedly positive at 4.2×10^8 copies/mL.

Infection Monitoring:

Plasma BK virus PCR 78,000 copies/mL — substantially above the 10,000 copies/mL threshold that defines presumptive BK nephropathy, and a steep rise from 1,400 copies/mL at month 12. CMV PCR undetectable. EBV PCR undetectable. Hepatitis B and C serologies negative. Blood cultures not indicated — afebrile with no systemic signs.

Rejection / Immune Monitoring:

New de novo donor-specific antibody detected — anti-HLA DQ7, MFI 3,800, negative at month 12. This is a clinically meaningful new finding that raises the possibility of concurrent antibody-mediated injury and substantially complicates management. Donor-derived cell-free DNA 0.9% (below the 1% rejection threshold, mildly reassuring but not exclusionary). Allograft biopsy performed today — pathology pending.

Hematology / Metabolic Labs:

WBC 3.4 K/µL (mild leukopenia, likely mycophenolate-related), hemoglobin 11.6 g/dL, platelets 188 K/µL. LFTs normal. Glucose 168 mg/dL, A1c 7.6% (up from 7.0%). LDL 96 mg/dL. PTH 88 pg/mL, 25-OH vitamin D 24 ng/mL. Ferritin 142, TSAT 24%. Uric acid 7.8 mg/dL.

Imaging:

Transplant renal ultrasound with Doppler today: allograft 11.6 cm, normal echogenicity, no hydronephrosis, no perinephric fluid collection or urinoma. Resistive index 0.78 (mildly elevated, non-specific). Main renal artery and vein patent with normal waveforms — no transplant renal artery stenosis. Native polycystic kidneys unchanged.

Pathology:

Ultrasound-guided allograft core biopsy performed today with two cores obtained. Sent for light microscopy, immunofluorescence, C4d staining, and SV40 large T-antigen immunohistochemistry — the last being essential to confirm or exclude BK nephropathy and distinguish it from acute rejection. Results pending, expected in 48–72 hours.

Prior Records Reviewed:

Complete transplant center record including the operative report, donor information and KDPI, induction protocol, all clinic notes from months 1–12, the full tacrolimus trough series with draw timing, prior BK and CMV surveillance results, month-12 DSA screen, month-6 ultrasound, pharmacy fill history (which corroborated the February mycophenolate gap), and community nephrology notes.

A ASSESSMENT

Kidney transplant recipient, deceased donor, 14 months post-transplant (03/08/2025), for ESRD secondary to ADPKD — now with progressive allograft dysfunction. Creatinine has risen from a nadir of 1.2

to 2.1 mg/dL, with eGFR falling to 36. This is a sustained, stepwise decline rather than an acute event.

Presumptive BK virus nephropathy — the leading diagnosis. Plasma BK PCR of 78,000 copies/mL is well above the 10,000 threshold, has risen more than fifty-fold since month 12, and is accompanied by very high urinary viral load and decoy cells on microscopy. The month-12 low-level viremia represents a missed opportunity for earlier pre-emptive intervention. BK nephropathy is fundamentally a disease of over-immunosuppression, and the treatment — reducing immunosuppression — is the direct opposite of rejection therapy, which is why biopsy confirmation is essential before acting.

Concurrent rejection cannot be excluded, and the therapeutic tension is the central problem of this case. A new de novo DQ7 DSA at MFI 3,800 has appeared since month 12, and marked tacrolimus variability with documented adherence gaps is precisely the exposure pattern that generates de novo DSA and subclinical rejection. Donor-derived cell-free DNA at 0.9% is mildly reassuring but does not exclude injury. BK nephropathy and acute rejection can coexist and are histologically difficult to separate without SV40 staining and C4d — hence the biopsy performed today. Empiric treatment in either direction before pathology returns risks precipitating the other problem.

Immunosuppression adherence failure with high tacrolimus variability — approximately twice-weekly missed evening doses plus a two-week period of mycophenolate rationing due to a prior-authorization lapse. Notably, the current trough is subtherapeutic at 3.1 while the cumulative exposure has nonetheless been sufficient to permit BK reactivation, reflecting erratic rather than uniformly high or low exposure. Both the pharmacy access barrier and the work-schedule barrier are modifiable and were not previously known to the team.

Calcineurin inhibitor toxicity is a secondary consideration given the worsening tremor and hypomagnesemia of 1.5, though the subtherapeutic trough makes CNI nephrotoxicity an unlikely primary driver of the creatinine rise. **New proteinuria** at 0.6 g/g, tripled from month 12, warrants attention on biopsy for recurrent or de novo glomerular disease, though ADPKD does not recur in the allograft. **Post-transplant diabetes with worsening control** (A1c 7.6%), **uncontrolled hypertension**, **mild leukopenia**, and **hypomagnesemia** all contribute to cardiovascular and graft risk.

Suspicious cutaneous lesion — a separate and time-sensitive finding. A non-healing keratotic plaque with surrounding actinic damage in a chronically immunosuppressed patient with heavy sun exposure is squamous cell carcinoma until proven otherwise. Transplant recipients carry a roughly 65- to 100-fold increased SCC risk, and he is overdue for dermatologic surveillance.

P PLAN

Graft function monitoring:

Repeat creatinine and BK PCR in 1 week, then every 2 weeks until viremia trends down and creatinine stabilizes. Repeat urine protein/creatinine ratio in 4 weeks. Biopsy pathology to be reviewed within 72 hours and the plan revised accordingly — patient counseled that today's plan is provisional pending histology.

Immunosuppression plan:

Await biopsy before any definitive change. Provisional plan if BK nephropathy is confirmed without rejection: reduce mycophenolate by 50% to 500 mg twice daily as the first step, maintain tacrolimus with a lowered target trough of 4–6 ng/mL, and continue prednisone — a staged reduction rather than abrupt withdrawal, to limit rejection risk. If biopsy shows concurrent rejection, treatment must be balanced with transplant center input and will likely involve treating rejection first with careful, close BK monitoring. Institute strict 12-hour trough timing with written instructions to the lab. Recheck trough in 1 week.

Rejection evaluation:

Allograft biopsy obtained today with SV40 and C4d staining — the decisive test. Repeat DSA with MFI trending in 4 weeks to determine whether the DQ7 antibody is rising or transient. Donor-derived cell-free DNA to be repeated alongside. Case to be discussed at the transplant center multidisciplinary conference this week given the competing BK-versus-rejection management paths.

Infection prevention and management:

No specific antiviral has proven efficacy for BK — immunosuppression reduction is the mainstay, and this was explained clearly to the patient. Continue monitoring for CMV given prior D+/R− status, though currently undetectable. Review and update vaccinations: confirm annual influenza and COVID boosters, and ensure no live vaccines. Reinforce infection precautions.

Blood pressure and cardiovascular risk management:

Increase amlodipine from 5 to 10 mg daily; continue labetalol. Target below 130/80. Home BP log twice daily. Continue atorvastatin. Discuss weight management — 18 lb gain since transplant. Reinforce sustained smoking abstinence.

Electrolyte and metabolic management:

Start magnesium oxide 400 mg twice daily for hypomagnesemia of 1.5, recheck in 2 weeks. Bicarbonate 21 — monitor; consider supplementation if it falls below 20. For post-transplant diabetes with A1c 7.6%: increase metformin management in coordination with endocrinology and place a referral; steroid-sparing considerations to be revisited once the BK and rejection question is resolved.

Proteinuria management:

Proteinuria has tripled to 0.6 g/g — biopsy will address the differential. Defer initiating ACE inhibitor or ARB until the acute picture resolves and creatinine stabilizes, to avoid confounding graft function interpretation.

Medication safety plan:

Full reconciliation completed. Reinforced permanent NSAID avoidance and the need to avoid contrast where possible. Reviewed drug–drug interactions with tacrolimus in detail — specifically azole antifungals, macrolides, diltiazem, and grapefruit — and provided a printed interaction card. All doses reviewed for the current eGFR of 36.

Malignancy and dermatologic surveillance:

Urgent dermatology referral placed for the suspicious left forearm lesion with likely biopsy — appointment targeted within 2 weeks. Counseled on daily broad-spectrum sunscreen, protective clothing, and monthly skin self-examination. Established annual dermatology surveillance going forward. Confirmed colonoscopy is current and deferred PSA discussion to primary care.

Bone health and anemia management:

Hemoglobin 11.6 with adequate iron stores — no intervention. PTH 88 and vitamin D 24: start cholecalciferol 2,000 IU daily. Continue calcium and phosphorus monitoring. Assess bone density given cumulative steroid exposure — DEXA ordered.

Pre-transplant plan, if applicable:

Not applicable — post-transplant. However, given the graft dysfunction trajectory, the previously preserved right AV fistula should continue to be protected as a contingency, and left-arm vein preservation reinforced.

Referral or coordination plan:

Transplant center multidisciplinary conference this week. Urgent dermatology. Endocrinology for post-transplant diabetes. Transplant pharmacist referral to resolve the prior-authorization barrier and establish 90-day fills with automatic refill and delivery. Transplant social work for adherence support around his work schedule. Community nephrology notified.

Patient education:

Spent significant time explaining BK virus in plain terms — that it is a virus his immune system normally controls, that the medications keeping the kidney safe are also what allowed it to reactivate, and that the treatment is a careful reduction rather than more medication. Explained why the biopsy must come before treatment. Addressed the adherence disclosure supportively and framed the pharmacy and schedule barriers as problems the team will solve, not personal failings. Reviewed warning signs: fever, reduced urine output, graft pain, and rapid weight gain. Provided a dosing pill organizer, phone alarms configured in clinic, and written instructions on trough draw timing.

F FOLLOW-UP

Biopsy pathology review within 72 hours with a telephone visit to convey results and finalize the immunosuppression plan — patient explicitly told not to change any medication until he hears from us. Return to transplant clinic in 1 week for repeat creatinine, BK PCR, and a properly timed tacrolimus trough. Repeat DSA and donor-derived cell-free DNA at 4 weeks. Dermatology within 2 weeks for the forearm lesion. Endocrinology within 4 weeks. Then every 2 weeks until creatinine and viremia stabilize, transitioning to monthly. Transplant center conference discussion this week.

TD TIME DOCUMENTATION, IF APPLICABLE

TOTAL TIME SPENT

75 minutes

COUNSELING / COORDINATION OF CARE TIME

35 minutes

RECORDS REVIEW TIME, IF APPLICABLE

20 minutes (transplant center records, trough series, pharmacy fill history)

TRANSPLANT CENTER COORDINATION TIME, IF APPLICABLE

15 minutes (biopsy scheduling and conference referral)

TB BILLING CONSIDERATIONS

E/M LEVEL

99215 — Established patient, high complexity

PROCEDURE CODE(S), IF APPLICABLE

50200 — Renal biopsy, percutaneous, by needle (with 76942 ultrasound guidance)

BASIS FOR BILLING

Medical Decision Making (high) — also supported by total time of 75 minutes

PRIMARY KIDNEY TRANSPLANT / GRAFT DIAGNOSIS CODE + DESCRIPTION

T86.19 — Other complication of kidney transplant (with N28.9, allograft dysfunction)

SECONDARY DIAGNOSIS CODE(S)

B25.8 / BK polyomavirus infection; Z94.0 (kidney transplant status); E11.9 (post-transplant diabetes); I12.9 (hypertensive CKD); N18.3 (CKD stage 3); E83.42 (hypomagnesemia); D70.9 (leukopenia); L57.0 (actinic keratosis)

SO **SIGNATURE**

PROVIDER NAME	CREDENTIALS	SPECIALTY	DATE	TIME
Rebecca Lindqvist, MD	MD, FAST	Transplant Nephrology	05/19/2026	14:35