Lack of access to outpatient services and medications results in preventable hospitalizations and contributes to rising healthcare costs. We report four cases of HIV-positive patients, hospitalized after a minimum of four months without ambulatory care (including Pneumocystis jiroveci after 2 years of care, CNS toxoplasmosis after >1 year, Influenza A w/o vaccination after 4 months, and Cryptococcal meningitis after 1 year). Stated perceptions of barriers to access are presented in this poster. In summary, patients on admission had a mean absolute CD4 count of 84 cells/mm³ and mean HIV viral load of 175,000 copies/ml. The average cost of their 4 patients was $6600 per day. 3 of the 4 cases had multiple admissions. The PJP case was admitted once, for 16 days. In contrast, estimated costs for ambulatory care in 2012 were approximately $24,000/patient. Estimated costs for inpatient stays in 1980 comprised $380, labs $3800, and anti-retrovirals/prophylaxis medicines $20,000. Patient-reported barriers to care included lack of insurance, inability to cover insurance or outpatient assistance programs, missed outpatient follow-up due to embarrassment of HIV diagnosis. Additional factors included distress in care and reports of feeling healthy.

METHODS

Case 1: The Self-Employed Interior Designer
Off ARVs: 4 months
Complications: Oral candidiasis
Influenza A
Peri-recital abscesses
Hospitalizations: Twice (9 days; extrapolated cost $40,000)
Barriers to care:
1. Insurance Denials
2. Not enough time/energy to fill out paperwork
JG is a 41 yr old unemployed mid-western man. He had been on ARTs for 4 months due to lack of insurance, along with chronic Hepatitis B, and anal dysplasia (HISL) who presented with per-anal tenderness, fever, night sweats and productive cough for 5 days. He was admitted with peri-recital abscess, Influenza A, and oral candidiasis. He had been laid off in Sept 2010 & retained insurance for a month but uninsured. Since he did not qualify for ADAP or Ryan White funding and for several months worked on a LHP application, finally learning that he was denied because he had "too much income" from a single payer plan that paid him at the end of the year. One of that income went directly to overhead business costs, but this did not affect the decision. Thus, he remained undiagnosed with HIV until he was admitted to UCSD after 2 years without a hospital. He was admitted to UCSD from jail, to which he had turned herself in "sober up," for CNS toxoplasmosis and its complications. She has required 3 subsequent hospitalizations to date. Her boys and I am still unaware of her HIV diagnosis and she is still without insurance and has not established care at a clinic. She remains ARV naïve with last CD4 count 127 cells/mm³ and VL 57,901 copies/mL as of Oct 2012. Each readmission for fever from recurrent abscesses as well as abdominal pain, we believe that abscesses would not have progressed to needing admission. We manage many mild peri-recital abscesses as outpatients.

Case 2: The Embarrassed Mother
Off ARVs: ARV naïve
Complications: Toxoplasma encephalitis
Right-sided paralysis
Hepatic-induced hyperglycemia
Hospitalizations: Four admissions (30 days; extrapolated cost $248,854)
Barriers to care:
1. Does not want people to know she has HIV
2. Felt healthy and did not apply for other insurance
3. Now feeling unwell and cannot work nor provide money for care
4. Could not concentrate to complete needed insurance paperwork. (Social work tried to help her and she did not follow-up.)

JG is a 36 yr HIV +A female with 4 recent hospitalizations from Oct 2013 to Apr 2013. She stopped working several years ago and lost her insurance but did not apply for private insurance because she felt healthy. In early 2013 she was hospitalized for a month at a community hospital. She was referred to outpatient services as she feared others finding out about her diagnosis. Several months later she was admitted to UCSD from jail, to which she had turned herself in "sober up," for CNS toxoplasmosis and its complications. She has required 3 subsequent hospitalizations to date. Her boys and I am still unaware of her HIV diagnosis and she is still without insurance and has not established care at a clinic. She remains ARV naïve with last CD4 count 127 cells/mm³ and VL 57,901 copies/mL as of Oct 2012. Each readmission for recurrent oropharyngeal edema after not being able to fill Decadron prescribed at prior discharge. 39 days of 4 mydopa-$11.10.

Case 3: The Stubborn Professor
Off Anti-Retrovirals (ARVs): 24 months
Complication: Pneumocystis jiroveci (PJP) pneumonia
Hospitalizations: One admission (16 days; actual cost $92,973)
Barriers to care:
1. Felt healthy
2. Let insurance lapse
3. An existing condition made him ineligible for work insurance
4. Cost of private insurance

GR is a 59 yr HIV+ white male who presented with 3 weeks of progressive dyspnea, found to have diffuse ground-glass opacities on CXR and hypoxia, and was admitted for treatment of PJP pneumonia. He lacked insurance for 2 years after allowing his private plan lapse. He felt "too healthy" and believed a healthy lifestyle would keep him well. He complained of overtreatment at another facility, as they were "making the treatment a focal part of my life." I felt I wasn't fitting into the system, and I was so sickly that the system had offered him the other system had compromised more to fit his needs. He denied any side effects from his ARVs that would have contributed to his decision to discontinue their use. At the time of his insurance lapse 2 years ago, patient stated he had been on anti-retroviral treatment for 8 years with a CD4+ count of 500 cells/mm³. After 2 years off ARVs, his CD4+ count dropped to 38 cells/mm³. This case was preventable. Risk of PJP is near with trim/sulfas prophylaxis.

Estimated annual cost of outpatient HIV services is $24,000

Case 4: The Homeless Christian
Off ARVs: 12 months
Complications: Cryptococcal meningitis
Probable cryptococcal pneumonia
Hospitalizations: Three admissions (21 days, extrapolated cost $145,215)
Barriers to care:
1. Medication incompatibility
2. Medication side effects
KE is a 60 yr AA HIV- male who discontinued his ARVs for 12 months because the pill was "too big" and upon requesting a change, the new medication represented a "wrong pill" and was too much. He reported side effects from ARVs, notably nausea and stomach pain. No lab data is available prior to stopping ARVs. KE relocated to San Diego and remained without care for a year. He presented to his HMO clinic for treatment of oral candidiasis. (CD4+ count 17 cells/mm³). Further studies revealed a diagnosis of cryptococcal meningitis & probable pneumonia. Dissatisfied with numerous blood draws & medications, he left the hospital system. He refused advice but developed & sweated night within two rights of sleeping on the street. He returned for treatment of a new deep vein thrombosis, and in spite of this remained upsets regarding the treatment for his meningitis & required ongoing encouragement from his friend, pastor & staff to remain hospitalized to undergo the two weeks of initial therapy. We believe the multiple hours a day spent with the medical students during his weeks was the key to increased trust in the healthcare system system by his past neglect of his not leaving AMA again. At time of discharge, he restarted ARVs and was working with Social Work to arrange ADAP, Medi-Cai and housing.

CONCLUSIONS

These case vignettes demonstrate HIV disease progression and related complications after as few as four months off ARVs and no access to outpatient care. Inpatient costs for these disease complications are considerable, approaching $250,000 for one patient. With adequate outpatient healthcare for patients with HIV, annual costs can be substantially reduced by eliminating preventable hospitalizations. Annual hospitalizations in these patients would result in cost savings of 50%-90%, with mean annual savings of 74%. However, we feel it is worth mentioning that charger rate was only 14% in 2013 for the real-world sample, with medical bills are being paid. Care and contracted care were not available, and differ from the charger. Larger numbers will need to address these cost differentials, although these numbers provide estimates for stimulating further discussion. Obtaining adequate healthcare is not only a problem of cost, but, as we demonstrate, is also related to various psychosocial issues. Further exploration into ways we can adapt our healthcare system to address those barriers is warranted.

In California, HIV patients face additional challenges in accessing high-quality outpatient services. Medi-Cal (California Medicaid) patients have reported to us that they are reassigned to non-HIV specialists, and complained of difficulty accessing HIV specialists, which can lead to inadequate HIV care and hospital re-admissions. It is well accepted that HIV-infected patients have longer life spans with better outcomes when cared for by specialists, and many states recommend this. Implementation of the new Affordable Care Act needs to address these outpatient services. However, the new ACA does not recognize, in practice, the survival benefit related to seeing an HIV expert. The new ACA should recognize this and allow for easier access to HIV experts, which would in turn lead to better patient care and decreased costs.

As a single day of hospitalization in our cases averages $6600 and has generally been related to progression of disease, focusing on the importance of outpatient care may provide solutions for similar patients. It is well accepted that hospitalization is a significant risk factor for HIV. It is well accepted that HIV-infected patients have longer life spans with better outcomes when cared for by specialists, and many states recommend this. Implementation of the new Affordable Care Act needs to address these outpatient services. However, the new ACA does not recognize, in practice, the survival benefit related to seeing an HIV expert. The new ACA should recognize this and allow for easier access to HIV experts, which would in turn lead to better patient care and decreased costs.