What is already known on this topic

Highly active antiretroviral therapy (HAART) has had a dramatic impact on the health of individuals infected with HIV

For several reasons, however, many patients may not be able to tolerate their initial treatment regimen or may experience virological failure while receiving HAART

It may therefore be necessary to switch treatments on one or more occasions, raising the concern that some patients may exhaust all currently available treatment options

What this study adds

The immunological and virological status of infected patients generally improved

A small but growing proportion of these patients, however, seem to be in danger of exhaustion of current treatment options

measurements and lower CD4 counts than other treated individuals, virological failure is an imperfect surrogate for the presence of resistance mutations, and some of these patients may not have developed resistance to both protease inhibitors and non-nucleoside reverse transcriptase inhibitors. Close links with the UK HIV Drug Resistance Database[9] will allow us to deal with this question directly once the use of resistance testing has become routine in this group. Further follow up of clinical events in these patients will allow us to assess whether our definition of three class failure is a good indicator of subsequent poorer clinical outcome.

Our findings show that new drugs with low toxicity, which are not associated with cross resistance to existing drugs, will be needed for such patients.

The authors thank all the clinicians, data managers, and research nurses in participating clinical centres (see bmj.com) who have helped with the provision of data for this project.

Contributors: See bmj.com

Funding: Medical Research Council, UK (grant G0000199).

Competing interest statement: Many of the authors have over the previous five years received reimbursement for attending symposiums, fees for speaking, membership of advisory boards, organising education or consultancy or funding for research from: Abbott (MY, SB, ANP, MAJ, RG, MF, GS), Boehringer Ingelheim (CAS, MY, ANP, MF, GS), Bristol Myers Squibb (BG, MY, SB, ANP, MAJ, MF, GS), Gilead Sciences (CAS, BG, MY, SB, ANP, RG, MF, GS), GlaxoSmithKline (CAS, FL, BG, SB, ANP, MF), Pfizer Pharmaceuticals (BG, MF), Roche (MY, SB, MAJ, RG, MF), Schering Plough (RG) and Tibotec (ANP). None of the authors hold any shares in any of the companies.

Ethical approval: Multicentre research ethics committee and local ethics committees.

1 Phillips AN, Staszewski S, Lampe F, Youle MS, Klauke S, Bickel M, et al. Human immunodeficiency virus rebound after suppression to <400 copies/mL during initial highly active antiretroviral therapy regimens, according to prior nucleoside experience and duration of suppression. *J Infect Dis* 2002;186:1086-91.
2 Mocroft A, Phillips AN, Miller V, Gatell J, van Lunzen J, Parkin JM, et al. The use of and response to second-line protease inhibitor regimens: results from the EuroSIDA study. *AIDS* 2001;15:201-209.
3 The UK Collaborative HIV Cohort Steering Committee. The creation of a large UK-based multicentre cohort of HIV-infected individuals: the UK Collaborative HIV Cohort (UK CHIC) study. *HIV Med* 2004;5:115-24.
4 Paulsen D, Liao Q, Fusco G, St. Clair M, Shaefer M, Ross L. Genotypic and phenotypic cross-resistance patterns to lopinavir and amprenavir in protease inhibitor-experienced patients with HIV infection. *AIDS Res Hum Retrovir* 2002;18:1011-9.
5 Chadborn T, Dingley S, Morgan D, Evans BG. CD4 cell counts in HIV-infected adults at HIV diagnosis in England and Wales, 1990 to 2001. Abstract O28. Presented at 9th Annual Conference of the British HIV Association (BHIVA), Manchester, England, 24-26 April 2003.
6 Easterbrook PJ, Yu LM, Goetghebeur E, Boag F, McLean K, Gazzard B. Ten-year trends in CD4 cell counts at HIV and AIDS diagnosis in a London HIV clinic. *AIDS* 2000;14:561-71.
7 Barry SM, Lloyd-Owen SJ, Madge SJ, Cozzi-Lepri A, Evans AJ, Phillips AN, et al. The changing demographics of new HIV diagnoses at a London centre from 1994 to 2000. *HIV Med* 2002;3:129-34.
8 Kuritzkes DR. Preventing and managing antiretroviral drug resistance. *AIDS Pat Care STDs* 2004;18:259-73.
9 The UK Collaborative Group on HIV Drug Resistance and UK CHIC Study Group. Long term probability of detection of HIV-1 drug resistance after starting antiretroviral therapy in routine clinical practice. *AIDS* (in press).

(Accepted 14 January 2005)

doi 10.1136/bmj.38369.669850.8F

The non-event worth a thousand successful procedures

The junior doctor's dilemma—how "happy" must you be with your diagnosis and treatment plan before you proceed without seeking a senior doctor's advice? I decided I needed to be happier, which proved to be the correct course of action.

The patient in question presented with shortness of breath, nothing new in a patient with known chronic obstructive pulmonary disease. The radiographer arrived, and the resultant chest x ray looked like a large pneumothorax. I quickly checked on the patient (stable) and his trachea (central) to ensure that I had not just requested the "film that should never have been taken" before skipping off to show the senior house officer. I had thoughts of chest drains running through my mind, and so was heartened by the senior house officer agreeing with my diagnosis and management. Sadly, she could not supervise me, so I should contact the registrar. The registrar would meet me on the ward shortly—fantastic, still on target for my first drain.

On returning to the ward, I found that the patient's old notes had turned up. I sat down to have a read and wait for the registrar. My eyes fell upon a sketch of a chest x ray remarkably similar to the film on the light box. The patient did not have a pneumothorax but did have bullae emphysema. With this discovery, all procedural opportunities evaporated.

I now sketch chest x rays in patients' notes, a practice I find remarkably useful, and try to play devil's advocate to any invasive procedures no matter how keen I or others are to perform them. I had to wait for another opportunity for my first chest drain, but this was preferable to my first being inappropriate.

Tim McCormick *clinical fellow anaesthesia, Royal Alexandra Hospital for Sick Children, Brighton*
(trmccormick@doctors.org.uk)

We welcome articles up to 600 words on topics such as *A memorable patient, A paper that changed my practice, My most unfortunate mistake,* or any other piece conveying instruction, pathos, or humour. Please submit the article on http://submit.bmj.com Permission is needed from the patient or a relative if an identifiable patient is referred to. We also welcome contributions for "Endpieces," consisting of quotations of up to 80 words (but most are considerably shorter) from any source, ancient or modern, which have appealed to the reader.