Email:

Dear colleague

You may be interested in the enclosed review dealing with the problem that an overwhelming majority of patients with chronic immunoinflammatory diseases are still being treated with repeated injections/infusions of protein drugs without knowledge of the immunopharmacological features that govern drug actions in these patients.

In case of anti-TNF-alpha biopharmaceuticals, this has gone on despite more than a decade of reports on induction of anti-drug antibodies and associated safety issues, and despite knowledge of response failure in a large percentage of these patients - <u>and irrespective of the enormous burden that this imposes on health-care</u>.

Drug immunogenicity has been shown to be a serious problem with prolonged biotherapies of other diseases, e.g. IFN-beta in multiple sclerosis and factor VIII in hemophiliacs. Nonetheless, most clinicians still administer anti-TNF drugs solely on a trial-and-error clinical outcome basis. The enclosed print discusses these issues and the central importance of (not) using proper technologies for drug and anti-drug antibody measurements.

Best regards,

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P.S. I also enclose a figure showing the substantial savings that may be achieved when immunopharmacological knowledge is included in therapeutic decisionmaking, in this case in a prospective study of Danish Crohn's patients treated with infliximab.