Comments made by 55 respondents.  
State or province of practice shown in brackets, e.g., [CA]

Comments about clofazimine access structure

• Biggest delay was local IRB approval process. Would be best with an IRB tied to the FDA process or licensure of the drug. [CA]
• It is too difficult to get clofazimine. Used to get it from Louisiana - LSU.  [CA]
• Obtained through Canada via patient contacts in South America. Never treated patient, who decompensated and died of underlying disease. [FL]
• Is fairly complicated process to get it. Generally works OK once approved. [GA]
• Try to avoid clofazimine if possible; should be easier to obtain. [WI & IN]
• Access structure is terrible. I had to pay $1000.00 to our IRB to get them to review it. They did approve but need the same costly and time consuming approval for each patient. Before the restructure we prescribed it only for reasonable patients who did well and had no resistance. Limiting it to leprosy is not reasonable. [IL]
• The process for obtaining clofazimine worked fine. Pleasure to deal with FDA. [IN]
• We have an IRB approval for MAI, but not for the *M. abscessus* indication. The IRB process is too time consuming, expensive and is not necessary. [IN]
• Used clofazimine for years for MAI prior to the restrictions but not since then -- bureaucratic hurdles are a big problem. The access structure is Ridiculous! We are so overwhelmed with authorizations for that the idea of going thru the hassle and time to get clofazimine has led me to not use it in patients who would probably benefit. Tried to get clofazimine for 2 patients and gave up! [CA]
• Very time consuming and difficult to obtain. Administrative process discourages use. Far too cumbersome. [NY & MI]
• The access structure was such an incredible burden I gave up once I got a description of what I needed to do. [WA]
• After an emergency use request for our first patient we obtained IRB approval for the next 20, positioning us to immediately consent patients as appropriate and file a request with FDA. [SC]
• Had thought about it in one current patient. Our large institutional IRB was going to charge me $250 simply to review it (I am not employed by them). [WI]
• I use it as a last resort because of the burden associated with acquisition, specifically having to prepare an IRB protocol every time I want to use it. [MO]
• Clofazimine is extremely difficult to get. The paper work is insurmountable. Most labs don't report susceptibility. *M. abscessus* is difficult if not impossible to treat at a county hospital with undocumented and uninsured patients as there is no satisfactory oral treatment. [CA]
• Have had a terrible time getting it. Told by FDA that they have to be tightfisted with clofaz or the USA might see a wave of clofaz resistant leprosy. Should revert to its earlier status-widely available without hoopla. [FL]
• I have one patient with pulmonary *M abscessus* infection. I obtained clofazimine through FDA after approval through hospital IRB (IRB took forever, FDA sent it quickly after approval and I had pt on other meds including IV while waiting). I had some help from ntminfo.org. [MN]
• IRB approval prior to obtaining an INF+D from the FDA is cumbersome in academic facilities. A template of an IRB application and an IND filled out would be helpful. Having the contact numbers from Novartis and FDA also would have been helpful. It was faster to order online from a Canadian pharmacy or to get it overseas. There should be a less restrictive process to obtain the drug still with caution and oversight. [FL]
• We have an IRB protocol that allows for easy IRB review for new patients. [CO]
• The difficulty obtaining clofazimine not only is an unpleasant hurdle for me, it also makes patients more fearful of the drug than they should be. [CA]
• The drug was obtained from the Hansen's disease Center in Louisiana and sent with 3-month refill orders. The prescriber needs to be registered as leprosy treating physician with the center in order to be able to prescribe (my director fulfilled that requirement). Paperwork is necessary back and forth. [NY]
• I am a bit cautious as I have no experience with drug. I have done many eIND, but they are still a lot of work and this is another issue. [MI]

**Comments about the use of and the usefulness of clofazimine**

• Used clofazimine for years in the late 80's and early 90's for *M. avium* infection in HIV patients. Not very effective. [MO]
• Clofazimine has major side effects: GI, skin pigmentation etc [NJ]
• I used clofazimine and pt had vomiting - I don't recall details. [CA]
• Once had a computer pick Clozaril 100mg rather than clofazimine 100mg which was what was ordered; it resulted in a mild but reversible psychosis until the error was corrected [MS]
• We hesitated to use clofazimine for fear of skin pigmentation - but if it proves to be effective I personally would not hesitate to use it, especially if all other therapies are failing... [AB]
• Do not think clofazimine adds much to Rx [WI]
• Well, the more effort is required to obtain it, the less likely it will be used. However, I'm not sure that's necessarily a bad thing. I do not have a large experience, but have not been greatly impressed by its efficacy. [WA]
• We are using it frequently for refractory *M. abscessus* [CO]
• Used on patients with Hansen's / Mac when it was available from Hansen's Center in Carlsville, Louisiana years ago; it takes an act of congress now (from CDC); do not have the time to do it [LA]
• I have used clofazimine for AIDS patients with DMAC when there was no HAART. I have been underwhelmed with efficacy and have seen many side effects. I am very skeptical that it would be of any benefit for M. abscessus infections. [CA]
• I was with the National Hansen's Disease Program in Louisiana, have written extensively on treatment of leprosy. I also authored the IND that made clofazimine available through NHDP before I transferred to the CDC. In the past I have used clofazimine for MDRTB, and other atypicals including abscessus. [GA]
• We are currently in the process of trying to obtain clofazimine for one of our pulmonary transplant patients with persistent invasive *M. abscessus*. [CA]
• See Dr. Barody's work (Australia) on *Mycobacterium avium* subspecies *paratuberculosis* in Crohn's [CA]
Comments on *M. abscessus* and specific cases of NTM

- 1) I currently have a 68 yo female pt who has just completed 6 months of therapy for *M. chelonae* C5-C6 vertebral abscess preceded by bacteremia via infected port. She received amikacin and clarithromycin based on the sensitivities. C5-C6 corpectomy was performed and C4-C7 ant fusion performed by the neurosurgeon. 2) a 56 yr male with locally acquired leprosy was seen 2010 and referred to NHD Program (USDHHS) in LA. He's currently on rifampin, clofazimine and clarithromycin as dapsone discontinued because of severe anemia due to G6PD problems (B-thalassemia). Meds provided by the Hansen's Disease Program. [MS]
- Experience limited to treating subcutaneous infection with clarithromycin [OR]
- I have not specifically treated *M. abscessus*, but I currently have 2 patients with pulmonary MAC. Both had *M. abscessus* grow in one of the samples and I am interested in whether or not the membership would treat this or consider it a bystander in a primarily macular infection. [NH]
- 1) I have had one extremely complex case of *M. abscessus* which I co-managed with National Jewish. 2) I have multiple pt cases of chronic MAC infection and several cases of *M. chelonae* complex and several cases of *M. chelonae* skin infection. [CA]
- I have seen only one case in last 10 y. It was a woman with infection of facelift sutures after a procedure in a border plastic surgery clinic acquired 8/11. She is currently on Rx. [IL]
- I generally regard *M. abscessus* pulmonary disease to be incurable and the goal of therapy to be control of symptoms. [FL]
- You should acknowledge potential role of surgical resection. [CA] You have left out all mention of surgery as an important therapeutic option of dealing with *M. abscessus*. [CA]
- Typically use cefoxitin in CAD pump and have also used Tygacil and Zvyox [FL]
- Outcomes are often poor due to underlying lung disease. Would consider surgical treatment in rare patients with focal disease; we refer such patients to National Jewish for assistance with evaluation and surgery, since local surgeons have no experience with this. [CA]
- Have only seen 1 patient with *M. abscessus*, pulmonary. Not very sick, but never really was cured. [OR]
- I am seeing many cultures for abscessus that we actually don't treat because the patients don't meet other criteria? [SC]
- Single case report of *M. haemophilum* in immunocompromised patient with 3 years of treatment. [CA]

Microbiologic Endpoints

Comments on duration of treatment

- I treat 6 weeks [IL]
- Treat at least 6 months or longer in pulmonary disease [NV & CA]
- Treat at least 1 year [IN]
- Treat at least 1 year after culture negative [GA, WI, MO, CO, NE, MI, SC]
- Would continue therapy for several months after culture conversion [TX & MA]
- Patient should complete prolonged course of antibiotics with persistently negative sputum cultures [FL & LA]

Comments on other non-microbiologic endpoints

- Microbiologic endpoints are not sufficient. Also need lasting clinical and radiologic improvement. [IN & FL & GA & WI]
- Microbiologic endpoints should be used together with radiologic changes- need to see marked improvement in CT. [GA]
- Microbiologic endpoints are just one parameter of evaluation--pulmonary (or other) improvements need to be considered as well [TX]
• Negative culture alone would not necessarily be endpoint of therapy [NJ]
• Clinical endpoints more important or equally important [MI & MA & KS & FL & IN]
• Duration of treatment is individualized and determined by course of clinical, radiographic & microbiologic findings [FL]
• Clinical resolution and azithromycin 6 months [WI]
• Microbiologic endpoints insufficient. Continuation of therapy for weeks/months after negative cultures and clinical improvement is likely important. [OK]
• Clinical change and tolerance to therapy would weigh in to the decision [CA]
• Clinical course and radiograph dictate treatment discontinuation to a greater extent in my mind [OR]
• Interpret cultures only as guided by clinical and radiologic indicators [OH]
• Our approach is induction therapy including IVs then prolonged suppressive oral/inhaled therapy. Endpoints to DC IV therapy include improvement in clinical status, smear status, and sometime cultures. Endpoints of suppressive therapy are 12 months negative cultures, which happens in the minority of cases. [CO]
• Difficult to achieve culture negativity - need to balance micro with clinical status [PA]
• I would not base treatment on the micro alone. We use multiple criteria to start so I use multiple criteria to stop. [SC]
• I view the value of repeat culture as being part of the assessment as to whether treatment is effective. Other criteria are symptoms and improvement or progression of CT scan. [CA]

Comments on microbiologic endpoints
• Microbiologic endpoints have not been helpful in past [FL]
• Don't re-evaluate culture unless they fail therapy [NV & WI]
• Sometimes collections are variable. So easier if absolute change. [WA]
• We follow sputum AFB cultures pretty routinely if the patient is producing sputum and prior sputa positive. Hope to see symptomatic improvement and culture conversion or no sputum. May feel good about a decrease in smear positivity but it seems terribly unreliable. Smears that don't get better and patients that don't get better we reassess susceptibilities and change course. [SC]
• Do not expect cultures to become/remain negative in all patients, e.g. cystic fibrosis [MO]
• Many patients remain cx + indefinitely or relapse after treatment [OH]
• Depending on type of treatment, tolerability, and goal (cure vs suppression) would individualize need for repeat cultures and duration of treatment [TN]
• Check monthly cultures and decide on duration [CT]
• Might stop antibiotics even if still culture positive sometimes [NY]
• Microbiologic endpoints not always accurate. Clarithro sometimes useful still [NJ]
• Use culture results to determine length of treatment, some time point past negative cultures [NH]
• Negative culture should be maintained throughout complete treatment duration [OH]
• Ill-defined. Most patients with lung disease have poor to no response. Would be unlikely to continue therapy for lung disease if no change in culture results after a month. [PA]
• Expect difficulty eradication even after adequate regimen. [MI]
• If marked improvement and culture neg with first course, would treat longer to see if curative. [MD]
• Very challenging; as is known, often never clear sputum so simply titrate treatment to symptoms and side effects from therapy. [NL]

Comments on microbiologic endpoints
• Committed to long term therapy regardless. [WI]
• Probably requires chronic protocolized therapies with inhalational amikacin and oral clarithromycin plus a respiratory quinolone [AB]