CLAIMS :

1. A kit comprising:

a sterile single use container comprising a pharmaceutical composition comprising a solution of levofloxacin or ofloxacin and a divalent or trivalent cation, wherein the solution is suitable for inhalation into a lung, and

a nebulizer adapted to aerosolize the solution for delivery to the lower respiratory tract through oral inhalation.

2. The kit of claim 1, wherein the solution is an aqueous solution.

3. The kit of claim 1, wherein the container comprises from about 1 ml to about 5 ml of the solution.

4. The kit of claim 1, wherein the nebulizer operates by ultrasonic atomization.

5. The kit of claim 1, wherein the nebulizer operates by hydraulic atomization.

6. The kit of claim 1, wherein the nebulizer operates by a vibrating mesh.

7. The kit of claim 1, further comprising a second container comprising an aminoglycoside antimicrobial.

8. The kit of claim 7, wherein the aminoglycoside is tobramycin.

9. The kit of claim 1, further comprising a second container comprising a polymyxin antimicrobial.

10. The kit of claim 9, wherein the polymyxin is colistin.

11. The kit of claim 1, further comprising a second container comprising a monobactam antimicrobial.

12. The kit of claim 11, wherein the monobactam is aztreonam.

13. The kit of claim 1, further comprising a second container comprising a macrolide or ketolide antimicrobial.

14. The kit of claim 1, further comprising a second container comprising a glycopeptide antimicrobial.

15. The kit of claim 14, wherein the glycopeptide is vancomycin.

16. The kit of claim 1, further comprising a second container comprising a fluoroquinolone antimicrobial.

17. The kit of claim 16, wherein the fluoroquinolone is selected from the group consisting of lomefloxacin, pefloxacin, ciprofloxacin, gatifloxacin, gemifloxacin, moxifloxacin, tosufloxacin, pazufloxacin, rufloxacin, fleroxacin, balofloxacin, sparfloxacin, trovafloxacin, enoxacin, norfloxacin, clinafloxacin, grepafloxacin, sitafloxacin, temafloxacin, marbofloxacin, orbifloxacin, sarafloxacin, danofloxacin, difloxacin, enrofloxacin, garenoxacin, prulifloxacin, olamufloxacin, DX-619, TG-873870 and DW-276

18. The kit of claim 1, comprising one or more of dornase alpha, a hypertonic formulation, mannitol, and sodium chloride.

19. ~~A salt, selected from the group consisting of levofloxacin xinafoate, levofloxacin oleate, levofloxacin palmitate, levofloxacin pamoate, and levofloxacin estolate~~ A co-crystallized precipitate selected from the group consisting of levofloxacin xinafoate, levofloxacin oleate, levofloxacin palmitate, levofloxacin pamoate, and levofloxacin estolate..

20. A dry powder, comprising particles having a mean particle size from about 2 microns to about 5 microns volumetric mean diameter and a particle size geometric standard deviation of less than or equal to about 2 microns, wherein the particles comprise a salt of claim 19.

21. A pharmaceutical composition, comprising a suspension of particles that comprise a salt of claim 19.

22. Use of a fluoroquinolone in combination with a divalent or trivalent cation or xinafoate, oleate, pamoate, or estolate in the preparation of an aerosol for treating a lung infection, a chronic obstructive pulmonary disease, cystic fibrosis, or sinusitis.

23. The use of claim 22, wherein the fluoroquinolone is levofloxacin or ofloxacin.

24. The use of claim 22, wherein the fluoroquinolone is selected from the group consisting of ciprofloxacin, gatifloxacin, gemifloxacin, norfloxacin, moxifloxacin, marbofloxacin, orbifloxacin, sparfloxacin, tosufloxacin, trovafloxacin, pefloxacin, lomefloxacin, clinafloxacin, prulifloxacin, sarafloxacin, sitafloxacin, and pazufloxacin.