

88 year old male admitted with drug induced bradycardia and delirium. He was on a combination of medications in the community (atenolol and diltiazem) which are known to cause bradycardia (slow heartbeat), which can on occasion be profound.

He had been taking the combination of atenolol and diltiazem since the 1990s, with no documented medication reviews more recently.

Despite stopping the atenolol and diltiazem on hospital admission, the patient suffered a cardiac arrest, from which he could not be resuscitated.

The combination of beta-blockers and diltiazem was quite frequently used historically in patients in sinus rhythm. It is rarely used now due to reports of profound bradycardia resulting.

However, many patients with atrial fibrillation may be on combinations of rate-limiting medications (beta-blockers, digoxin, verapamil or diltiazem, amiodarone) which can cause excessive bradycardia, especially as patients' ages increase. Regular clinical review before issuing of repeat prescriptions is recommended

What Did We Learn?

- GP or community pharmacist should periodically review medications on repeat prescriptions to ensure safety
- Periodic face to face repeat community prescription reviews should happen at least annually to ensure new issues have not arisen – particularly if the potential for problems is known. Bradycardia due to the combination of medications used here could have been picked up at an earlier, asymptomatic, stage, had his pulse been taken at a medication review.
- A combination of a pharmacist review, noting potential for adverse drug interactions, with a clinical review, to check if the flagged-up risks were actually occurring, could have prevented this event.

